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Analysis of the 1980 National Survey of Fishing, Hunting, and
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Report No. 1

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Identifying and Describing Segments of Consumptive Users of Fish and Wildlife in the United States

Volume I: U.S. Fish and Wildlife Service—Region 1

May 1984

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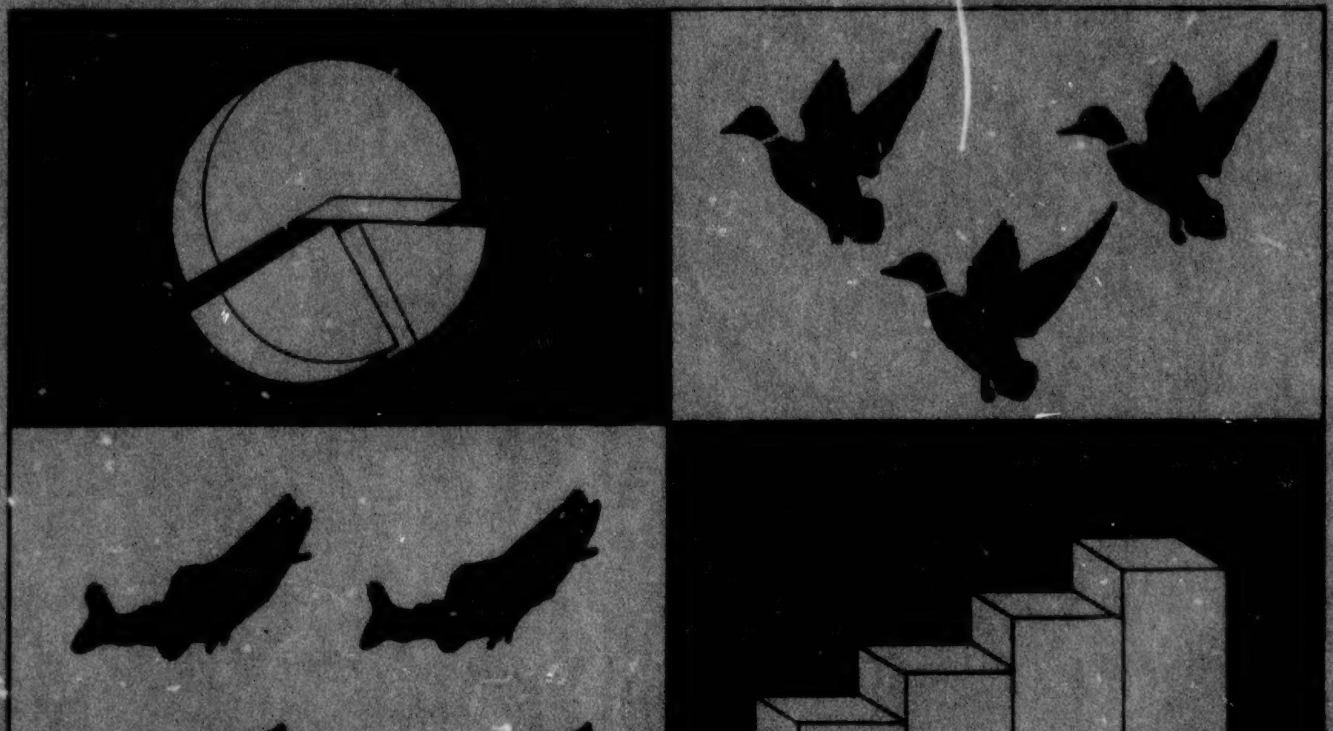

ANALYSIS OF THE 1980 NATIONAL SURVEY OF FISHING, HUNTING, AND WILDLIFE-ASSOCIATED RECREATION

Report No.

1. Identifying and Describing Segments of Consumptive Users of Fish and Wildlife in the United States

    - Volumes I-VII correspond to U.S. Fish and Wildlife Service Regions I-VII. They consist of selected sections of the larger, complete report. Each volume consists of a national summary, analysis of a given Region, and a selected State within that region.

2. Dynamic Aspects of the American Sport Hunting Population

3. An Analysis of the Overlap in Participation of Consumptive and Nonconsumptive Wildlife Users

4. Recreational Use of Public vs. Privately Owned Lands for Hunting

This series of reports was prepared to supplement the data reported in The 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. Topics for analysis were suggested by the International Association of Fish and Wildlife Agencies. The views and conclusions expressed here are the authors' and not necessarily those of the U.S. Fish and Wildlife Service.

ANALYSIS OF THE 1980 NATIONAL SURVEY OF FISHING, HUNTING AND WILDLIFE-ASSOCIATED RECREATION

REPORT NO. 1

IDENTIFYING AND DESCRIBING SEGMENTS OF CONSUMPTIVE USERS OF FISH AND WILDLIFE IN THE UNITED STATES

VOLUME I
U.S. FISH AND WILDLIFE SERVICE
REGION I

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Washington, D.C. 20240

May 1984

Volumes I-VII consist of selected sections of the larger, complete report. Each consists of a national summary, analysis of a given Region, and a selected State within that region.

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INTRODUCTION

One of the most difficult tasks facing fish and wildlife managers in the United States is to maintain viable fish and wildlife populations while providing opportunities to meet the recreational demands of the public. Meeting this challenge requires an understanding of not only fish and wildlife resources (i.e., biological information) but also the preferences, attitudes and behaviors of the recreationist (i.e., social information).

Since the turn of the century the role of social information in decision making has increased in importance. As recreational preferences have changed, so have management approaches to meeting them. Early approaches emphasized that "success" or the amount of game or fish "bagged" was an accurate measure of hunting and fishing benefits. Implicit in this approach was the notion that obtaining food was the primary motive of hunters and fishermen. Under those circumstances, wildlife managers focused their efforts on increasing numbers of fish and game available for harvest believing that with increased numbers of fish and game, increases in benefits from recreation would result (Hendee 1974).

An extension of the "game bagged" notion was what can be called the "days afield" concept. Under this approach emphasis was still on providing fish and game, however, it was proposed that the way to increase benefits from hunting and fishing was to increase the number of days of recreation that pursuing fish and game provided (Crissey 1971). It assumed that benefits to sportsmen were constant, regardless of success or quality of the experience. This notion also suggested that the most value occurred where the greatest number of sportsmen were found. Hendee (1974) suggested that management practices based on this concept might result in crowded, perhaps unsafe hunting and fishing conditions. Such an approach could also lead to management for the types of recreation that a majority of recreationists would engage in, paying less attention to the preference of other user groups.

Recognizing the shortcomings of these approaches, writings in the 1960's and 1970's emphasized two fundamental ideas that have served as a foundation for subsequent views of recreational benefits and management of fish and wildlife related recreation.

The first suggests that there are a wide variety of satisfactions and benefits which are derived from hunting and fishing experiences, and that these diverse satisfactions and benefits are the real product of game management (e.g., Brown et. al 1973, Driver and Tocher 1970, Hendee 1974, Wagar 1966). For example, research showed that while success is definitely a part of the enjoyment or satisfaction derived from hunting and fishing, other aspects of the experience are also important, such as being outdoors, being with friends or family, and being engaged in the challenge of stalking game (e.g., Kennedy 1974, More 1973, Potter et al. 1973). In employing this concept, managers have been encouraged to manage fish and wildlife resources to provide opportunity for a variety of satisfactions (Hendee 1974).

The second key finding emphasized that there is no "typical" or "average" sportsman. Instead, there are many sportsmen who receive different satisfactions, require different resource settings for their experiences, and require different types of management approaches. Though this was documented in a study of campers (Shafer 1969), it has since been shown in studies of hunters and fishermen (e.g., Potter et al 1973, Hautaluoma and Brown 1978, Buchanan et al., 1982). It is now recognized that a major weakness of many studies of sportsmen has been the tendency to "homogenize" groups, thus neglecting information on characteristics of sportsmen subgroups (Bryan 1979, Applegate 1977).

For managers, this finding has emphasized the need to recognize the diverse and potentially conflicting preferences of the users they serve when attempting to manage and allocate the recreational resource in an equitable way. Several management schemes have been offered to assist managers in meeting this goal.

For example, Bryan (1977) has suggested that managers recognize the diversity of recreational fishermen segments according to their degree of resource and technique specialization. He offers descriptions of the type of management preferences held by each group which could aid managers in meeting demand by these groups. Another broader approach to characterizing users is the Recreation Opportunity Spectrum which is currently used by the USDA Forest Service and the USDI Bureau of Land Management to aid in assessing recreation supply and demand. As commonly applied, this approach identifies six broad classes of recreational opportunities ranging from primitive to modern-urban, each unique in the combination of recreation activities, settings, and probable experiences provided (Driver and Brown 1978; Clark and Stankey 1979; Buist and Hoots 1982). The applicability of the approach specifically to fish and wildlife related recreation has been described by Brown (1982).

Though the notion of managing for a distinct user group to produce opportunity for a "diversity of satisfactions" is a viable conceptual approach, application of this concept has occurred slowly. Barriers to implementation of this concept are varied. However, one which is prominant and is the focus of this study is the availability of social information concerning hunter and fishermen groups. The 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (NSFHWAR) presents that type of information. Information on user groups is presented in the following sections, and suggestions are made on how this information might be used.

This study presents results using an existing data source, the 1980 National Survey of Fishing, Hunting and Wildlife-Associated Recreation. Data in the study allowed for characterization of user groups by type of activity (e.g. big game hunters, small game hunters, freshwater fishermen, saltwater fishermen), species sought (e.g., deer hunters, elk hunters, bass fishermen, trout fishermen), and special equipment used (e.g., bow and arrow hunters, spear fishermen) (see Table 1 for a more complete list of user groups). Geographic breakdowns of data included national, regional and state level analysis.

The specific study objectives were to produce statistical summaries which:

1. Describe the hunting participation patterns, characteristics and expenditures of several segments of hunters. These segments are identified on the basis of game hunted and weapons used.
2. Describe the participation patterns, characteristics, and expenditures of several fishermen segments. Fishermen segments are identified on the basis of type of water fished, species pursued, and method of fishing.
3. Compare sportsman and nonsportsman publics on socioeconomic characteristics.[1]

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[1] Sportsmen have been defined as those who either hunt or fish. This analysis does not include comparisons between sportsmen groups who are also non-consumptive users. That is the subject of a separate U.S. Fish and Wildlife Service study.

Table 1. User segments and descriptive variables described nationally and by region[a].

User segments	Descriptive variables
Sportsmen	Age
Nonsportsmen	Marital status
	Sex
	Education
	Population of location growing up
	Employed (yes/no)
	Race
	Location of residence (rural/urban)
Big game hunters	Days hunting by region
Small game hunters	Number of hunting trips by region
Migratory bird	Age of introduction to hunting
Other game hunters	Years of hunting experience
	Reasons for hunting
	Days hunting on public land
	Expenditures for travel, access, and equipment
Deer hunters	Days hunting--total and by region
Elk hunters	Age of introduction to hunting
Antelope hunters	Years of hunting experience
Moose hunters	Reasons for hunting
Bear hunters	
Turkey hunters	
Mountain goat hunters	
Mountain sheep hunters	
Alaska big game hunters	
Hawaii big game hunters	
Rabbit hunters	
Quail hunters	
Grouse hunters	
Chuckar hunters	
Squirrel hunters	
Pheasant hunters	
Alaska small game hunters	
Hawaii small game hunters	
Goose hunters	
Duck hunters	
Coot, rail hunters	
Woodcock hunters	
Dove hunters	
Pigeon hunters	
Alaska migratory bird hunters	
Hawaii migratory bird hunters	

Table 1. Continued.

User segments	Descriptive variables
Crow hunters Woodchuck hunters Raccoon hunters Fox hunters Coyote hunters Alaska fur hunters	
Bow hunters Muzzle loader hunters Pistol hunters	Days hunting big game, small game, migratory birds and other game Age of introduction to hunting Years of hunting experience
Great Lakes fishermen Freshwater fishermen Saltwater fishermen	Days fishing by region Number of fishing trips--total and regional Age of introduction to fishing Years of fishing experience Fishing locations Expenditures for travel, equipment and access
Bass fishermen Pan fish fishermen Catfish fishermen Walleye fishermen Pike fishermen Trout fishermen Salmon fishermen Rockfish (striped bass) fishermen	Days fishing--total and by region Age of introduction to fishing Years of fishing experience Fishing locations
Spear fishermen Net fishermen Ice fishermen Bow fishermen Gigging fishermen	Days of participation Age of introduction to fishing Years of fishing experience

[a] U.S. Fish and Wildlife Service Regions, see Figure 1.

METHODS

U.S. Fish and Wildlife Service Study

The 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, conducted by the U.S. Fish and Wildlife Service and U.S. Bureau of the Census, is the sixth in a continuing series of surveys conducted every five years since 1955 (U.S. Fish and Wildlife Service and U.S. Bureau of the Census 1982), and thus represents one of the oldest and most comprehensive continuous recreation surveys in the United States. Information gathered in the first four surveys focused on number of participants, days of hunting participation, and expenditures for hunting and fishing activities. The 1975 survey was unlike the previous surveys in that individual reports for each of the 50 states were produced for the first time, and mail questionnaires, versus in-person interviews, were used to gather data. The 1980 survey combined elements from the two previous surveys to become the most detailed investigation of American users of fish and wildlife resoruces ever conducted. About 34,000 individuals were asked to provide information regarding their hunting, fishing, and nonconsumptive wildlife-related activities in 1980 (U.S. Fish and Wildlife Service and U.S. Bureau of the Census 1982).

One unique aspect of the 1980 survey was that state and federal wildlife agencies, fish and wildlife researchers, and natural resource conservation organizations were contacted and provided input on how to increase the utility of the data being gathered. Through this process, special information "needs" were identified and specific analysis objectives or project areas were identified (U.S. Fish and Wildlife Service 1982).

The 1980 National Survey was implemented by the U.S. Bureau of the Census and involved two phases. In the first phase, completed in January 1981, a sample of 116,025 households nationwide was screened, mostly by telephone, to determine who in the household had hunted, fished, or participated in some nonconsumptive wildlife-associated activity. Information about household members 6 years old and older was obtained and potential participants for phase two were identified. A 95 percent response rate was achieved (U.S. Fish and Wildlife Service and U.S. Bureau of the Census 1982).

The second phase of the survey consisted of detailed in-person interviews conducted during spring 1981 with samples of hunters, fishermen, and nonconsumptive users identified in the screening phase. Participants in this phase were limited to those at least 16 years old. A total of 30,300 hunters and fishermen responded to a 50 page questionnaire and 6,000 nonconsumptive users answered a 22-page questionnaire. A sample of those who hunted or fished, and engaged in nonconsumptive activities were interviewed with both questionnaires. A response rate of approximately 90 percent for fishing and hunting and 95 percent for nonconsumptive users also was achieved for these groups respectively (U.S. Fish and Wildlife Service and U.S. Bureau of the Census 1982).

Analysis to Characterize User Segments

Prior to data analysis, computer tapes containing the 1980 survey data were obtained from the U.S. Fish and Wildlife Service. Initial error correction and "cleanup" of the data had been done by the U.S. Bureau of Census. A weight, based on an individual's likelihood of selection, had been assigned to each respondent, thus making the results representative of the entire population of people engaging in hunting, fishing, and other wildlife-related recreation activities (U.S. Fish and Wildlife Service and U.S. Bureau of the Census 1982).

Sportsmen user segments used in this study had been previously identified by the Fish and Wildlife Service (1982) and were based on (1) whether a person did or did not do any hunting or fishing, (2) locations fished, (3) species pursued, and (4) methods used in hunting or fishing. In total there were approximately 38 non-mutually exclusive hunter segments and 23 non-mutually exclusive fishermen groups in the proposed classification schemes (see Table 1). Summaries of segments were made at national, regional (U.S. Fish and Wildlife Service Regions, see Fig. 1), and selected state levels.

National and regional level analysis.

Variables used in describing hunter and fishermen user groups are listed in Table 1. Over 300 descriptive variables were identified to be included in this phase of the analysis, though not all variables were used in describing every segment identified. Those variables chosen for describing each group were chosen primarily on the basis of whether or not the descriptive variable would add information pertinent to understanding that group. A computer program produced the desired output on characteristics of user segments for seven U.S. Fish and Wildlife Regions and on a national level.

State level analysis.

The state level analysis differed from the national and regional levels in that only a few select states were chosen for analysis, and the state level analysis was more in-depth for the segments identified. The selected states were chosen to represent geographic and species diversity,

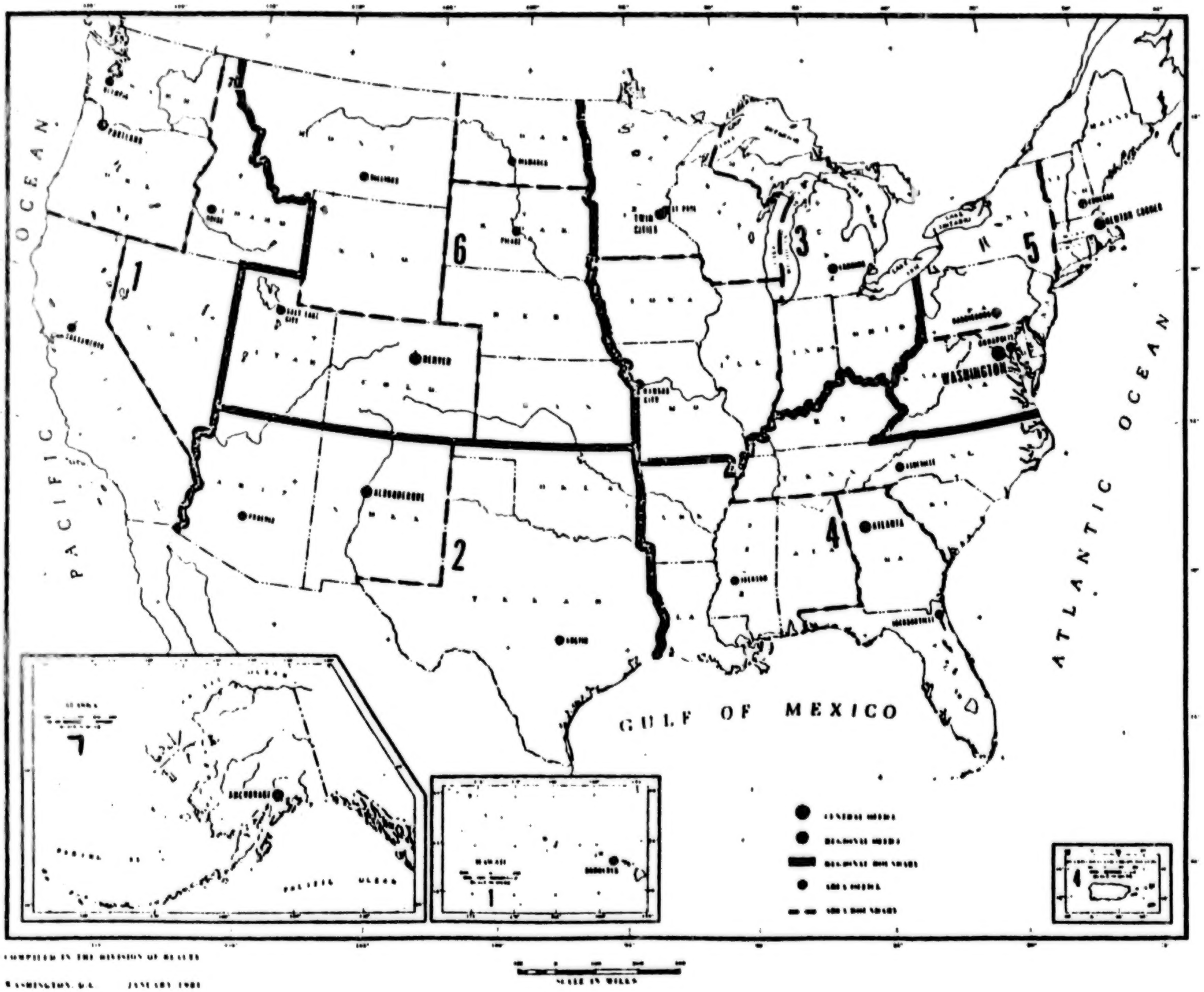

Figure 1. U.S. Fish and Wildlife Service Regions.

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and included Alaska, California, Louisiana, Michigan, Montana, New York, and Oregon.

The user segment groups described for each state are listed in Table 2. User segments for a particular state were initially chosen for analysis on the basis of whether or not the segments were likely to exist within that state in sufficient numbers to allow reliable inferences from the data. Fish and wildlife managers from each of the seven states were contacted for input concerning user segments chosen for their specific state. In some cases additional segments were identified for analysis and a few segments were deleted. The descriptive variables to be used for each user segment are also listed in Table 2.

Sportsmen, nonsportsmen comparisons.

Data used in the sportsmen-nonsportsmen analysis came from information obtained during the screening phase of the 1980 National Survey. Household members 6 years old and older were assigned to sportsmen or nonsportsmen groups depending on whether or not they had done any hunting or fishing in 1980, and information was obtained on socio-demographic descriptive variables for the two groups at the national, regional, and selected state levels.

Delimitations of the study

For the purpose of this study, the following delimitations were set forth:

1. Summaries of hunter and fishermen segments were made on persons in the U.S. population who were 16 years old and older, and sportsmen/nonsportsmen comparisons were made on persons at least 6 years old and older.

Table 2. User segments and descriptive variables used for selected states[a].

User segments[b]	Descriptive variables
Sportsmen Nonsportsmen	Age Marital Status Sex Education Population growing up Employed (yes/no) Race Location of residence (rural/urban)
Big game hunters Small game hunters Migratory bird hunters Other game hunters	Age of introduction to hunting Years of hunting experience Membership in conservation and sportsmen organizations Reasons for hunting Days hunting on public land Hunting participation by state regions[c] Travel-related expenses Access-related expenses
Deer hunters Elk hunters Moose hunters[d] Mountain goat hunters[d] Dall sheep hunters[d] Caribou hunters[d] Grizzly bear hunters[d] Black bear hunters Duck hunters Goose hunters Pheasant hunters Grouse hunters	Days hunting--regionally[c] Number bagged per day--by region Age of introduction to hunting Years of hunting experience Reasons for hunting
Bow hunters Muzzle loader hunters	Days hunting big game, small game, migratory birds and other game Expenditures for special equipment Age of introduction to hunting Years of hunting experience Membership in conservation and sportsmen organizations Reasons for hunting

Table 2. Continued.

User segments[b]	Descriptive variables
Freshwater fishermen Saltwater fishermen Great Lakes fishermen	Age of introduction to fishing Years of fishing participation Membership in conservation and sportsmen organizations Fishing locations Fishing participation by state regions Travel-related expenses Access-related expenses
Trout fishermen Bass fishermen Walleye fishermen Pike fishermen Pan fish fishermen Salmon/steelhead fishermen Grayling fishermen[c] Great Lakes Trout fishermen Great Lakes Walleye fishermen Great Lakes Pike fishermen Great Lakes Pickerel fishermen Great Lakes Salmon/Steelhead fishermen Saltwater Salmon fishermen Saltwater Steelhead fishermen	Days fishing--regionally Number caught per day--by region Age of introduction to fishing Years of fishing experience
Ice fishermen	Days of participation Expenditures for special equipment Age of introduction to fishing Years of fishing experience Membership in conservation and sportsmen organizations
Large reservoir anglers Small reservoir anglers Natural lakes/ponds anglers River/stream anglers	Other locations fished

[a] State include: Alaska, California, Louisiana, Michigan, Montana, New York and Oregon.

[b] Some segments (such as Great Lakes anglers) were not described for every state.

[c] See individual state maps (Figures 2-8).

[d] Alaska hunters only.

2. U.S. Fish and Wildlife Service national regions were used in regional analyses.

3. Sportsmen segments were not placed in mutually exclusive groups, thus hunters and fishermen could appear and be counted in more than one user group.

4. Sportsmen segments described regionally and by state were defined and selected as residents who participated in hunting and/or fishing activities within their resident region or state.

5. Some of the data and statistics in this report are slightly different from similar data and statistics in reports published elsewhere that are based on the NSFHWAR. This is to be expected, because the survey's computer file often permits a particular calculation to be made in more than one way or from more than one place on the file. It would not be cost effective to replicate the data and statistics in other reports exactly, because a search for the other programmers' techniques would be costly. In addition, subtle differences may occur due to different definitions of terms, compared with other reports. The definitions which were used in this report were selected because they are most useful in this context. When appropriate, these definitional differences have been noted or discussed.

Limitations

Several limitations should be considered in these analyses.

1. Interview responses were based on a subject's recall of a whole year's hunting and/or fishing activities. This introduces the possibility of lower accuracy of responses due to subjects guessing when they were unable to recall their activities.

2. The accuracy of results for some strata, particularly for state and regional level analyses, may be limited due to small sample sizes.

3. The following socio-demographic variables used in comparing sportsmen and nonsportsmen may have low accuracy since information was not obtained through self-report methods; one person gave responses for all members of a household and all members were included in the sample. Variables include age, marital status, sex, education, population of the location of growing up, employment, race, and location of residence.

4. Expenses for equipment presented here are underestimates of total equipment expenditures because they did not include costs for equipment that could be used for both hunting and fishing, such as boats, travel trailers, etc., though this information is available from the NSFHWAR (1982).

RESULTS

The purpose of this study was to describe characteristics of consumptive fish and wildlife recreationists in the United States. This section reports study results which are summarized for hunters and anglers at the national, regional, and state levels of aggregation. Broad data summaries for hunters and fishermen at each level of aggregation are described in this section. These summaries are based on more detailed statistical information which is presented in table form in Appendices A through O.

National Summary

More than one-quarter of the United States population engages in some type of consumptive fish and wildlife recreation. Forty-two million people are anglers and 17.4 million people are hunters.

Comparing various demographic characteristics of sportsmen with people who neither hunt or fish, present both similarities and differences worth noting. The most noticeable difference between the two groups is the ratio of males to females, with 70 percent of sportsmen being male, 30 percent being female, while only 39 percent of nonsportsmen are men and 61 percent are women. A slightly higher percentage of sportsmen than nonsportsmen are married (66 percent vs. 56 percent for nonsportsmen), and nonsportsmen have an average age of 38 years old, while sportsmen average 32 years old. Nonsportsmen more often tended to grow up and currently reside in urban environments than do sportsmen (73 percent vs. 60 percent residing in urban areas). Ninety-two percent of the Nation's sportsmen are white, as are 83 percent of nonsportsmen, and 69 percent of sportsmen are employed[1] compared to almost 53 percent of nonsportsmen. These two groups have similar levels of education (close to 75 percent of each group have attended high school or college) and they come from households of similar size (sportsmen average 3.6 persons, nonsportsmen average 3.4 persons per household).

Sportsmen represent a diversity of interests and demands on our natural resources. Some of the hunter and fishermen segments involved are described below.

Hunters

Of those who hunted in the United States in 1980, almost 12 million hunted for big game, 12 million for small game, 5 million for migratory birds and 2.6 million for "other"[2] game animals. Though the actual number of big and small game hunters is similar, small game hunters took many more trips (145 million) than big game hunters (91 million). Trips taken by migratory bird hunters numbered close to 40 million, while trips taken to hunt "other" animals totalled approximately 37 million.

Though hunting is popular throughout the country, the most often hunted of the Fish and Wildlife Service Regions, for all game types, are the southern (Region 4), the northeastern (Region 5), and the midwestern--Great Lakes (Region 3) regions (see Figure 1 for a map). Big game were hunted most often in Region 4 (29.8 million trips) and Region 5 (26.1 million trips); small game hunters spent the most time in Regions 3 and 4

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[1] Employed includes persons having a job or owning a business. Does not include persons who are retired, going to school, or keeping house.

[2] Includes crows, woodchuck, raccoon, fox, coyote, wolverine, lynx, and many other game animals.

(40.8 million trips in each region); and migratory birds were hunted most often in Region 4 (11.3 million trips). Overall the eastern regions of the country were hunted more often than the less populace western regions and Region 7, which includes only the state of Alaska, was the least hunted region.

The average age of introduction to hunting for most hunter groups was approximately 11 to 13 years of age and the average number of years of hunting experience ranged between 18 and 20 years. Exceptions to these averages include hunters of certain big game species such as antelope and deer hunters who were introduced to hunting at older ages and hunters of Hawaiian game species who had fewer average years of experience than the sportsmen in other hunter segments.

From a choice of six reasons for hunting, those reasons most frequently cited were sport/recreation and obtaining meat. Of these two, sport/recreation was listed more frequently for most small game, migratory bird and "other" animal hunter groups. Several big game hunter groups, including antelope, elk, moose, mountain goat, Alaska and Hawiian big game hunters, cited obtaining meat more frequently than recreation/sport as their most important reason for hunting. Other prominant reasons mentioned by all hunter groups were to spend time with family and friends and to be close to nature. Hunting for a trophy and to deal with problem animals were the least frequently cited reasons for hunting.

Public land provides a substantial portion of hunting opportunities. Big game hunters spent 45.9 million days on public land in 1980, small game hunters spent 39.1 million days, migratory bird hunters spent 12.3 million days, and "other" animal hunters spent 7.0 million days afield on public land. While each hunter group relies heavily on a mix of public land types, it is noticable that big game hunters spent the largest percentage of their hunting days on federal and state owned land; small game and migratory bird hunters spent the greatest proportion of their days on state and local owned public land; and "other" game hunters spent the largest proportion of their time on locally owned public land.

Travel, equipment and access expenditures associated with hunting totals approximately 4.7 billion dollars annually. Of these expenditures, one-half were spent for big game hunting, one-third for small game hunting, one-eighth for migratory bird hunting, and the remainder for hunting "other" animals. For each group, travel was the greatest expense (at least 50 percent of total), followed by equipment (35-45 percent) and access (less than 5 percent). Big game hunting expenditures were much higher than expenditures made by hunters of other game types, particularly travel costs, with big game hunters spending $1.4 billion on travel, small game hunters spending $867 million, and migratory bird hunters spending $349 million on travel.

The largest segment of hunters when classifying hunters by game species hunted, is deer hunters which number 11.4 million sportsmen. The next largest hunter segment is rabbit hunters (7.6 million sportsmen) and squirrel hunters (6.3 million). Other sizeable hunter segments include pheasant hunters (4.2 million), quail hunters (3.7 million), grouse hunters (2.3 million), duck hunters (2.7 million), and dove hunters (3.0 million).

Special weapons hunters, those who hunt with bow and arrows, a muzzle loader, or a pistol, represent a small proportion of all hunters, yet are a sizeable group of sportsmen. There are approximately 2 million bow hunters, 1.3 million pistol hunters, and .8 million muzzle loader hunters. Bow hunters and muzzle loader hunters most often pursue big game (15 million and 3 million hunting days, respectively), while pistol hunters most frequently hunt small game (5 million hunting days).

Anglers

Of those Americans who fished in the United States in 1980, 3 million fished the Great Lakes, 35.3 million fished other freshwater, and 12.3 million fished saltwater. Trips taken to fish Great Lakes locations numbered close to 36 million, trips taken to other freshwater locations totalled almost 585 million, and there were more than 130 million trips taken to fish saltwater in 1980.

Though fishing was a popular form of recreation in all regions of the United States, the largest number of freshwater trips were taken in Region 4, the southern region (176 million trips) and Region 3, the midwestern-Great Lakes region (159 million trips). The greatest number of saltwater trips (45 million) were taken in Region 5, the northeastern region, followed by Region 4, the southern region and Region 1, the western region, with 42 million and 25 million saltwater fishing trips, respectively. As would be expected, regions in the eastern half of the nation are more heavily fished than regions in the West, with the fewest total fishing trips made to Region 7, the Alaskan region.

The average age of introduction to fishing for angler user segments nation-wide ranged between 9 and 10 years old and years of fishing experience ranged between 22 and 25 years.

Freshwater anglers, including those who fish the Great Lakes, fish a variety of water locations. More than 40 percent of all freshwater anglers, close to 16 million anglers, fished river and stream locations in 1980. A large number of anglers fished large man-made reservoirs (10+ acres) and natural lakes and ponds (14.5 million anglers at each location). Small man-made reservoirs (less than 10 acres) were fished by the fewest number of freshwater anglers (8 million fishermen). Saltwater anglers were evenly distributed among fishing deep sea, surf/shore, and sound/tidal locations, with between 4 and 6 million anglers fishing each of these three areas.

Travel, equipment, and access-related expenditures associated with fishing total approximately 9.4 billion dollars annually. Of these expenditures, 70 percent were made by freshwater anglers, 25 percent by those fishing saltwater, and 4 percent by Great Lakes fishermen. For each of these groups, travel costs, including food, lodging and transportation costs, were the greatest expense. Expenses for equipment made up between 20 and 30 percent of the total for freshwater and saltwater anglers, while access-related expenses such as guide and package fees and land use fees made up between 2 and 6 percent of the total for all three groups. Freshwater anglers spent more than $5 billion on travel expenses and another $1.5 billion on equipment, while saltwater anglers spent $1.5 billion in travel and $635 million on equipment.

When classified by the fish species they pursued, the largest segment of anglers was panfish fishermen totalling slightly more than 20.6 million anglers, followed by bass fishermen (19.7 million anglers). Other sizeable angler segments include catfish anglers (14 million fishermen), trout fishermen (11.7 million) and walleye, pike, salmon, and rockfish fishermen (each with 3-5 million anglers).

Emphasis on fishing participation for specific species varied by regions of the United States (see Figure 1 for a map of regions). Warmwater species such as bass and panfish were fished most frequently in the southeastern (Region 4) and midwestern-Great Lakes (Region 3) regions. Similarly, more than half of all days spent catfish fishing took place either in the southeastern or midwest-Great Lakes regions (72 and 69 million days, respectively). Trout were pursued most often in Region 5 (slightly less than 50 million days) and Region 1 (46 million days), as well as Region 3 and Region 6 (each with 20-21 million fishing days). As one might expect, rockfish and salmon were pursued most often in the two coastal regions and walleye and pike fishing occurred most often in Region 3, the midwestern-Great Lakes region (54 million and 43 million days, respectively).

Anglers who participate in specialty fishing such as spear fishing, fishing with a seine or net, ice fishing, using bow and arrow, or gigging for frogs, make up a small proportion of the total number anglers, yet are a sizeable group of sportsmen. Ice fishermen are the largest group with 1.9 million anglers, followed by seine or net fishermen with 1.2 million anglers. There are almost a million anglers who gig for frogs, more than 441,000 spear fishermen, and 293,000 anglers who fish with a bow and arrow. Specialty anglers had been introduced to the sport of fishing at an early age, with the average age of introduction to fishing for each group being less than 9 years old, the average age for spear and bow fishermen was 7.6 years old. Of the five specialty groups, ice fishermen had the most years of fishing experience ($\bar{x}$ = 25 years) while anglers in the other specialty groups had been fishing an average of 21 or fewer years.

Region 1

Slightly more than one-quarter (6.5 million) of the people 16 years old or older living in Region 1, which includes California, Hawaii, Idaho, Nevada, Oregon and Washington, engage in some type of consumptive fish and wildlife recreation.

Comparing various socio-demographic characteristics of Region 1 sportsmen with those of people from the Region who neither hunt or fish, points out similarities and differences worth noting. The large majority of both sportsmen and nonsportsmen are white (89 and 84 percent, respectively), and come from similar size households (x = 3.3 persons). The two groups have similar levels of education (78 percent of sportsmen and 76 percent of nonsportsmen have attended high school or college) and, though a greater percentage of sportsmen are married (63 percent vs. 56 percent of nonsportsmen), 26 percent of each group have never been married. The most noticeable difference between the two groups is the ratio of males to females. Seventy percent of Region 1's sportsmen are male and 30 percent female, while only 41 percent of nonsportsmen are male and 59 percent are female. Sportsmen have an average age of 32 years old, nonsportsmen average 37 years old, and a greater percentage of sportsmen have jobs or own businesses (71 percent vs. 56 percent). More nonsportsmen than sportsmen grew up and now live in urban environments (85 percent vs. 75 percent of each group, respectively, now reside in urban areas).

Hunter and fishermen user segments that make up Region 1's sportsmen are discussed below.

Hunters

Region 1 has close to 1.2 million resident big game hunters, 1.1 small game hunters, 712,000 migratory bird hunters, and 155,000 hunters who pursued "other" game such as crow, woodchuck, and coyote. Those big game hunters took close to 6.5 million hunting trips, small game hunters took 10.8 million trips, migratory bird hunters took 4.7 million trips, and "other" animal hunters took 1.3 million trips. The majority of those trips, at least 87 percent of total trips taken by each hunter group, were to locations within Region 1.

Hunters living in Region 1 go to other regions to hunt a variety of game species. Small game hunters, in particular, took trips outside the region, with 12 percent of their total number of trips made to locations in other regions. The species they pursue, in part, vary according to the region in which they are found. Those travelling to Regions 2 (the Southwest), 3 (the Midwest-Great Lakes), and 4 (the South) hunt predominantly for small game species (i.e. rabbit, squirrel, pheasant), while those travelling to Regions 5 (the Northeast), and Region 6 (the Northern Rockies and Plains) hunt for a mixture of selected big and small game species (i.e. deer, elk, squirrel, pheasant, duck).

Hunters coming to Region 1 to hunt originate primarily from Regions 2 (the Southwest), 3 (the Midwest-Great Lakes), and 6 (the Northern Rockies and Plains). The species they pursue vary according to their region of origin: Region 3 hunters participate most often in big game hunting, Region 2 hunters most often seek small game, and Region 6 hunters seek a combination of big and small game species.[1]

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[1] This information obtained by examining the out-of-region participation of hunters from all region.

The average age of introduction to hunting for big game, small game, migratory bird, and "other" animal hunters ranged between 10 and 15 years of age. Among the four broad classes of hunter groups, big game hunters had the most years of hunting experience ($\bar{x}$ = 19 years) and small game hunters the least ($\bar{x}$ = 17 years). Years of hunting experience varied widely among hunters of particular game species. For example, bear, moose, antelope and goose hunters had the most years of experience ($\bar{x}$ = 22 to $\bar{x}$ = 26 years), pheasant, duck, deer and fox hunters had on the average between 17 and 20 years experience, and mountain goat, crow, rabbit, and woodcock hunters had an average of between 9 and 15 years of experience.

Looking at Region 1 hunters' most important reason for hunting, the reason most often given by big game hunters was obtaining meat. In contrast, while hunting for meat was the reason given by a large portion of small game, migratory bird and "other" animal hunters, the most often given reason by hunters in these groups was hunting for sport or recreation. Moderately large numbers of hunters in these groups mentioned being close to nature and being with family and friends as their most important reason for hunting while those hunting for the primary reason of eliminating problem animals or obtaining a trophy make up smaller numbers of hunters in these groups.

Hunters from Region 1 rely heavily on public land to engage in recreational hunting. Big game hunters depend on public land more than any other hunting group; in 1980 they spent 6.4 million days hunting on public land. Small game hunters spent 5 million days on public land, migratory bird hunters spent 1.9 million days, and "other" animal hunters spent .8 million days afield. While each type of hunting utilizes a mix of publicly owned land, it is noticable that big and small game hunters rely most heavily on federal land, "other" animal hunters rely on federal and locally owned public land, and migratory bird hunters rely most heavily on locally owned public land.

Travel, equipment and access expenditures made by hunters from Region 1 total close to 619 million dollars. Of these expenditures, approximately $299 million were spent on big game hunting, $211 million were spent hunting for small game, $97 million were spent hunting migratory birds and $10 million hunting "other" animals. For all of these groups, expenditures for travel, including food, lodging, and transportation, were greater than expenses for access or equipment, with big and small game hunters spending $191.9 million and $119.7 million, respectively, on travel costs alone.

The largest segment of hunters, when classifying hunters from Region 1 by the species hunted, were deer hunters which totalled close to 1 million sportsmen. Other sizeable hunter segments were rabbit hunters (.5 million), quail hunters (.5 million), pheasant hunters (.5 million), duck hunters (.4 million), dove hunters (.4 million) and elk hunters (.3 million).

Hunters who use special weapons for hunting such as pistols, bow and arrows, and muzzle loaders, represent a relatively small proportion of the total number of hunters from Region 1. Pistol hunters make up the largest special weapon user group with 146,000 hunters, while muzzle loader hunters number approximately 40,000 sportsmen and bow hunters number 120,000. Muzzle loader and bow hunters spent most of their days afield in pursuit of big game and pistol hunters spent most their time in pursuit of small game. A noticeable distintion between these groups is that muzzle loader hunters have a higher average number of years ofhunting experience

($\bar{x}$ = 21 years) than either pistol ($\bar{x}$ = 15 years) or bow hunters ($\bar{x}$ = 14 years). Reasons given for hunting vary somewhat among these three groups; bow and muzzle loader hunters place greater emphasis on the recreation and sport aspects of hunting while pistol hunters place more emphasis on obtaining meat.

Anglers

Region 1 is the fourth most often fished region in the U.S. In 1980 close to 4.8 million anglers fished freshwater in that region and 2.9 million anglers fished saltwater in Region 1 (see Tables 13 and 14 in Appendix A for total fishing participation in Region 1). Most of the fishing activity in Region 1 is done by residents of states within that region; there were 4.6 million resident freshwater anglers and 2.7 million saltwater anglers who fished there in 1980 and 97 percent of both freshwater and saltwater fishing trips in Region 1 were taken by anglers living there.

Region 1 resident anglers, particularly those fishing freshwater, also took fishing trips outside their region. The southwest (Region 2) and southern (Region 4) regions were popular destinations. Comparatively little saltwater angling was done out-of-region, the greatest number of trips being taken to Region 7 (Alaska).

Grouping resident anglers by fish species pursued, trout fishermen are noticeably the largest segment, with more than 3.7 million anglers. The next largest groups are bass and catfish anglers (1.8 and 1.7 million, respectively), panfish and salmon anglers (each with nearly 1.4 million anglers), and rockfish anglers (1 million). Trout anglers spent more than 47.8 million days fishing, and bass, panfish, and catfish anglers each spent close to .25 million days angling.

These anglers also spent the large majority of their fishing days within the region and the amount of time spent fishing outside the region varied by the angler group considered. For most angler groups almost 10 percent of their angling activity took place outside Region 1, though only 2 percent of days spent salmon and rockfish angling were spent outside the region. The most popular out-of-region area for bass, panfish, and catfish anglers was Region 2, while Region 6 was popular for trout angling.

Most freshwater and saltwater anglers from Region 1 were introduced to fishing at an early age--an average of 9.5 years old. Consequently, they have also had many years of fishing experience--on the average between 21 and 22 years of participation in the sport. Salmon fishermen appear to have been introduced to the sport of fishing at particularly early age ($\bar{x}$ = 8.4 years old) and have had an average of 25 years of fishing experience.

Freshwater anglers from Region 1, including the few who fish the Great Lakes, fish a variety of water locations. Forty-six percent of the freshwater anglers from the region (2.4 million anglers) fish rivers and streams. Almost that same number fish large man-made reservoirs (10+ acres) and natural lakes (2 million and 1.9 million, respectively). The locations fished most infrequently by Region 1 anglers are small man-made reservoirs (less than 10 acres). Resident saltwater anglers, given choices of deep sea, surf/shore, and sound/tidal areas, most often fished deep sea and surf/shore locations (more than 1 million anglers at each location), as well as sound/tidal areas (878,000 anglers).

Travel, equipment, and access-related expenses made by Region 1 anglers total close to 1.6 billion dollars annually. Of these expenditures, 1.1 billion dollars was spent by freshwater anglers and 475 million dollars by saltwater anglers. For each group, travel expenses including food, lodging, and transportation costs, were the greatest expenditures, followed by equipment and access-related expenses such as guide, package, and land-use fees. Freshwater anglers spent almost .9 billion dollars on travel, .2 billion dollars on equipment, while saltwater anglers spent .3 billion dollars on travel and .1 billion dollars on equipment.

Anglers from Region 1 who participate in specialty fishing such as spear fishing, seine or net fishing, ice fishing, using bow and arrow, or gigging for frogs represent a small proportion of all anglers, but spent considerable time engaged in specialty fishing activities. Among these groups, those fishing with seines or nets (87,000 anglers) spent the most days fishing, almost 400,000. Spear fishermen (72,000 anglers) were next, spending close to 300,000 days spear fishing. There were 98,000 anglers who gigged for frogs, 68,000 ice fishermen, and 23,000 anglers who used bow and arrows. Most of the days of participation by these groups were spent in the anglers' resident states.

California

More than 22 percent of the people 16 years old and older living in California either hunt, fish, or do both. Comparing various socio-demographic characteristics of California sportsmen with people from the State who neither hunt or fish (nonsportsmen) reveals similarities and differences worth noting. The large majority of both groups are white (87 percent of sportsmen, 83 percent of nonsportsmen), grew up in urban environments (56 percent of sportsmen and 53 percent of nonsportsmen), and now reside in urban areas (85 percent and 91 percent of sportsmen and nonsportsmen, respectively). The two groups have similar levels of education (41 percent of sportsmen and 37 percent of nonsportsmen have attended college), they come from, similar size households ($\bar{x}$ = 3.4 and 3.3 persons, respectively), and the majority of both groups are married (61 percent of sportsmen and 56 percent of nonsportsmen). California sportsmen have an average age of 31 years old, nonsportsmen average 37 years old. A larger percentage of sportsmen have jobs or own businesses (73 percent vs. 57 percent of nonsportsmen), though the most noticeable difference between the two groups is the ratio of males to females. Seventy percent of California's sportsmen are male and 30 percent female, compared with only 42 percent of nonsportsmen who are men and 58 percent who are women.

The following summaries describe the characteristics and degree of participation of the user segments that make up this group of 4 million California resident sportsmen.

Hunters

California resident hunters pursue a variety of game in their state, with small game such as rabbits and upland game birds being dominant. There were more than 530,000 small game hunters, close to 400,000 migratory bird hunters, almost 300,000 big game hunters, and 47,000 hunters who pursued "other" game such as crow, woodchuck, raccoon, and fox.

Seventy percent of California resident hunters in all groups had been introduced to hunting by age 15, though years of hunting experience varied by hunting group. Forty to fifty percent of big game and migratory bird hunters have been hunting at least 18 years, and between 30 and 40 percent of small and "other" game hunters have hunted that long.

California resident hunters do not belong to national conservation or wildlife-related organizations, with less than 30 percent of any particular hunter group belonging to an organization. Of those that did belong, they were members of a variety of organizations, including Ducks Unlimited, National Rifle Association, American Birding Association, Izaak Walton League, National Audubon Society and The Wildlife Society.

Reasons for hunting given by California hunters center around experiencing the sport of hunting, obtaining meat, and, to a lesser degree, being close to nature and interacting with family and friends. Sport and recreation is the dominant reason for hunting, though less important to big game hunters, who showed greater interest in obtaining meat.

When California resident hunters hunt on public land, they most often use federal lands. This is especially true for hunters pursuing big and small game, each having spent 1.3 million days hunting on federal lands in 1980. Migratory bird and "other" animal hunters most often hunt on locally owned public land, spending more than 470,000 and 160,000 days, respectively, hunting there.

The distribution of hunting over the state wildlife management regions (see Figure 3) varied by type of game hunted. The southern California (065) region of the state was the most heavily hunted by small game and migratory bird hunters (close to 2 million and 836,000 hunting days for each group, respectively), though small game were also heavily hunted in the north central valley (062) region. Big game were hunted fairly equally throughout the state, though more hunting occurred in the north central valley region than elsewhere. The northern California (061) and coastal (063) regions were the least heavily hunted regions by hunters of all game types.

In 1980, resident California hunters spent more than 150 million dollars in-state for travel and access-related expenses. Big game hunters spent 40 million dollars on in-state travel expenses, small game hunters spent 65 million dollars, and migratory bird hunters spent 45 million dollars, each group averaged spending more than $100 per hunter. Access-related expenditures such as guide and access fees, though not nearly so large, varied somewhat by type of game hunted. Migratory bird hunters spent more than 3 million dollars in-state on access fees and equipment rental, while California big game and small game hunters each spent $1.5 million and $1.6 million, respectively).

In looking more closely at hunters of some of the game species that were hunted by California residents we find that deer hunters are the largest group, numbering more than 266,000 hunters, followed by pheasant hunters (close to 200,000) and duck hunters (almost 163,000). Deer were pursued most frequently in the north central valley (062) and northern (061) regions of California, each with 542,000 and 444,000 hunting days,

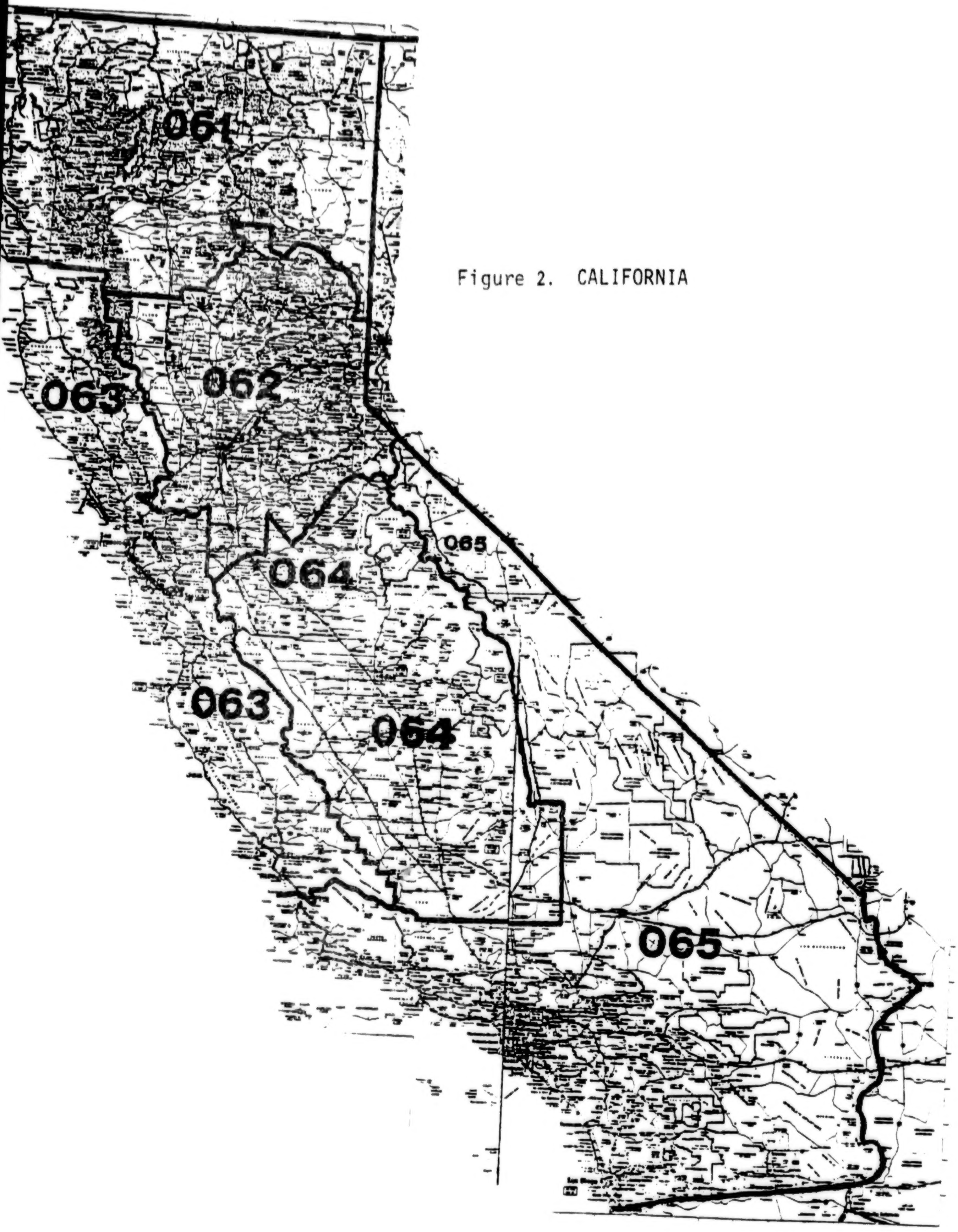

Figure 2. CALIFORNIA

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respectively, in 1980. The large majority of days pheasant hunting also took place in the north central valley (062) region, (more than 840,000 hunting days in 1980). The north and south central valley (062 and 064) regions were the most frequented regions by goose and duck hunters.

Sport and recreation was the most often mentioned reason for hunting given by hunters of all species, particularly pheasant hunters, with close to 60 percent of that group indicating that was their most important reason for hunting. Deer hunters showed more interest in obtaining meat than other hunters, especially when totals for the first and second most important reasons for hunting are combined.

California has a relatively small group of special weapon hunters. There are almost 67,000 bow and arrow hunters and 12,000 muzzle loader hunters. Ninety percent of the 109,000 hunting days generated by muzzle loader hunters were spent pursuing big game, while close to 50 percent of the more than 440,000 days hunting by bow and arrow hunters were spent pursuing big game and 35 percent spent hunting small game. Reasons for hunting given by these special weapon hunters center around sport and recreation, obtaining meat, and being with family and friends.

Anglers

California had more than 3.7 million sport fishing participants in 1980. Included in that total are close to 2.8 million resident freshwater anglers and 1.9 million saltwater fishermen.

Most California resident anglers were introduced to fishing while children; 78 percent of both fresh and saltwater anglers were introduced by 11 years of age. Saltwater anglers have participated in fishing, on the average, for more years than freshwater anglers. Over 57 percent of saltwater anglers have fished for at least 18 years, while the majority of freshwater anglers have been fishing for over 16 years.

California anglers are not joiners of national conservation or fish and wildlife organizations, with less than 20 percent of freshwater or saltwater anglers being members of an organization.

California resident anglers fish in a variety of locations such as large and small man-made reservoirs and natural lakes and streams, as well as ocean areas such as surf/shore, deep sea, and sound/tidal areas. Freshwater fishing most commonly occurs on large reservoirs and rivers and streams, while saltwater fishing most commonly occurs as surf and shore fishing and fishing in deep sea locations.

The amount of angling varies considerably among the state wildlife management regions of California. Nearly all of the resident saltwater fishing occurs in the central coast (063) and southern (065) regions of California, totalling close to 16 million fishing days in 1980, with over half of the fishing days occurring in the southern region. Of the more than 42 million freshwater fishing days estimated for 1980, 7 percent took place in the northern (061) region, 23 percent in the north central valley (062) region, 16 percent in the central coast (063) region, 18 percent in the southern central valley (064) region, and 36 percent in the southern (065) region.

California resident anglers spent more than 900 million dollars, 80 percent of that total in-state, travelling and gaining access to fishing locations in 1980. In-state travel expenses such as food, lodging, and transportation, for freshwater anglers totalled 487 million dollars, while access-related expenses, mainly equipment rental and land access and use fees, totalled almost 39 million dollars. Resident saltwater anglers spent almost 170 million dollars in California on travel-related items and 50 million dollars on access-related expenses.

In looking more closely at resident anglers of some of the species fished, we find that trout anglers are the largest group, with 1.9 million anglers, followed by bass fishermen with close to 1.2 million anglers. Other angler groups include almost a million panfish anglers, close to 700,000 rockfish anglers, and 240,000 freshwater salmon/steelhead anglers. Participation varied over California's wildlife management regions. The southern California (065) region had the most trout fishing days in 1980, more than 9.5 million, followed by the north central valley (062) region with 5 million days. There were close to 4 million days of bass fishing in the central coast (063) region in 1980 though bass and panfish angling were popular throughout the state. Among saltwater anglers, more days are spent in pursuit of rockfish than for any other species, particularly in the central coast (063) and southern (065) regions (2 million and 3 million days fishing, respectively).

Relative to the total number of anglers, California resident ice fishermen are a small group, numbering about 9,000 anglers. They are active, however, having spent over 54,000 days fishing in California in 1980. Unlike other anglers, only about 50 percent of California ice fishermen began fishing as children (less than 156 years old), and over 80 percent have been fishing (in general, not necessarily ice fishing) less than 15 years. Ice fishing anglers are also more likely to belong to national conservation and fish and wildlife conservation organizations than fishermen in general (85 percent of all freshwater anglers belong to no such organizations, 68 percent of ice fishermen do not belong).

Oregon

Forty percent of the people 16 years old and older living in Oregon either hunt, fish, or do both. Comparing socio-demographic characteristics of Oregon sportsmen with nonsportsmen residents reveals similarities and differences worth noting. The large majority of people in both groups are white (93 percent of sportsmen, 84 percent of nonsportsmen), though blacks make up 9 percent of Oregon's nonsportsmen compared to 3 percent of the sportsmen group. The groups are similar in terms of where they grew up, with 58 percent of each group having grown up in small town or rural settings, though 72 percent of Oregon's nonsportsmen now live in urban areas compared to 64 percent of sportsmen. The two groups have somewhat similar educational backgrounds, with 28 percent and 32 percent of sportsmen and nonsportsmen, respectively, having been to college; and they come from similar size households (an average of 3.5 persons for sportsmen and 3.2 persons for nonsportsmen). The average age of Oregon sportsmen is 33 years old, nonsportsmen average 40 years old. Sixty-eight percent of sportsmen have jobs or own businesses, compared with 51 percent of nonsportsmen and 70 percent of sportsmen are married, 60 percent of nonsportsmen. The most noticeable difference between the two groups are the proportions of males and females. Two-thirds of Oregon's sportsmen are male and a third are female, while nonsportsmen are the reverse, only 37 percent are male and 63 percent are female.

The following summaries describe the characteristics and degree of participation of the user segments that make up the group of 760,000 Oregon sportsmen.

Hunters

More than 350,000 persons hunted in Oregon in 1980. Included in that total are close to 320,000 resident hunters who pursue a variety of game. There are close to 292,000 big game hunters, almost 112,000 small game hunters, 81,000 migratory bird hunters, and 31,000 hunters who hunted "other" animals such as crow, coyote, and woodchuck.

Most Oregon hunters were introduced to hunting by age 15, with 71 percent of big game hunters having begun hunting by then and at least 90 percent of small game, migratory bird, and "other" game hunter groups having been introduced to hunting by then. Oregon hunters have had a considerable amount of hunting experience, with more than half of all hunters having been hunting at least 18 years.

Oregon hunters are not joiners of national hunting and wildlife organizations, with less than one-third of any hunter segment being members of an organization.

Reasons for hunting given by Oregon hunters center around obtaining meat, experiencing the sport of hunting, and interacting with family or friends. Close to 54 percent of big game hunters indicated obtaining meat was their most important reason for hunting, while small game and migratory bird hunters indicated that hunting for sport and recreation was most important, this was particularly evident when first and second most important reasons are combined.

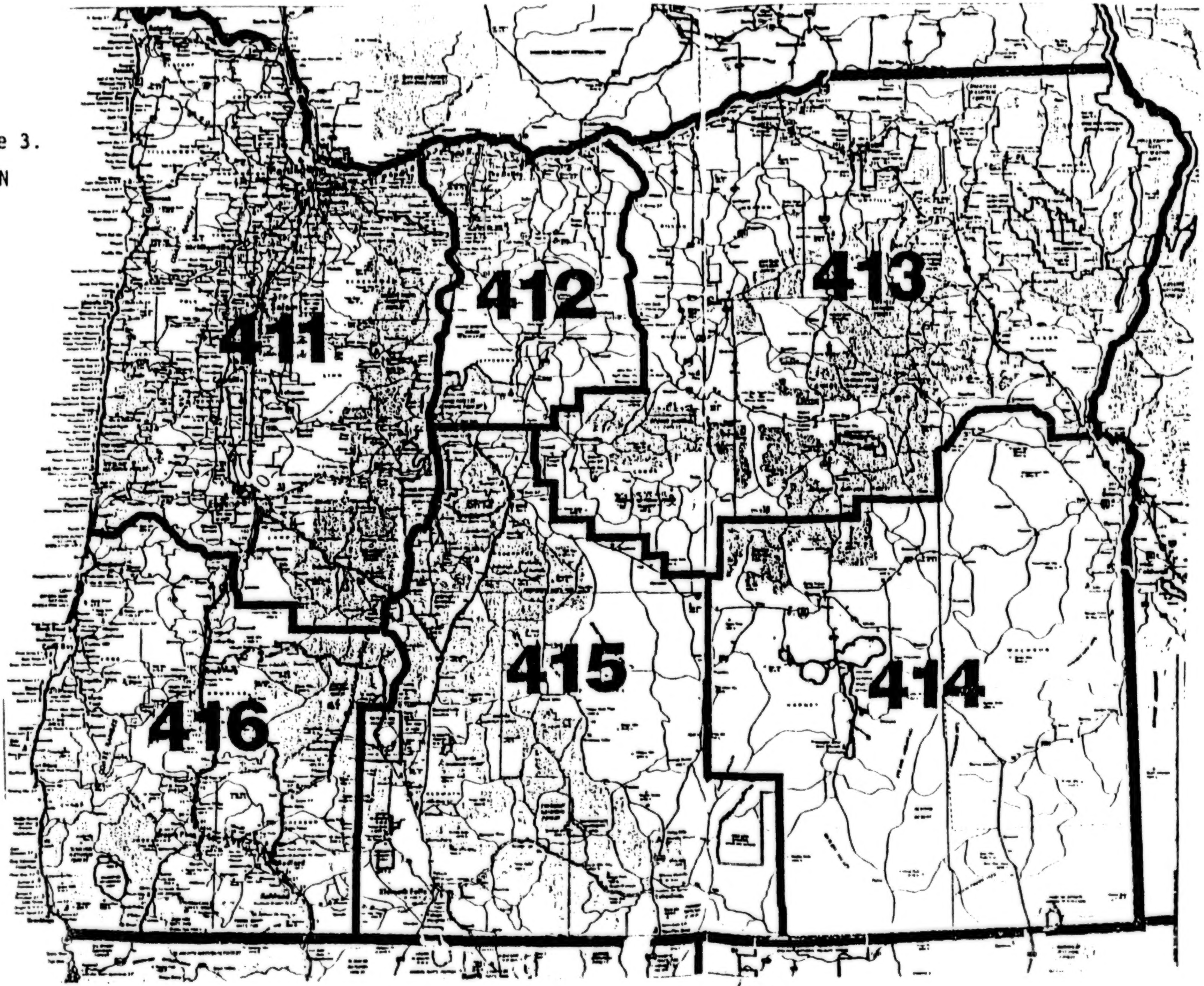
Oregon hunters who hunt on public land most often hunt on federal lands, particularly hunters pursuing big and small game. Big game hunters spent 1.3 million days hunting on federal lands in 1980 and small game hunters spent 256,000 days. Small game hunters also often hunt on locally owned public land, as do migratory bird hunters and each spent close to 140,000 days hunting on these lands in 1980.

The distribution of hunting among Oregon's state wildlife management regions (see Figure 8) varied somewhat by type of game hunted. The Willamette Valley (411) region was the most heavily hunted region by resident big game hunters (1 million hunting days), small game hunters (531,000 days), and migratory bird hunters (217,000 days). Hunters of "other" game hunted most often in the northeastern (413) region, spending close to 114,000 days there in 1980. The least heavily hunted region was the sparsely populated southeast (414) region of Oregon.

In 1980, resident hunters spent 60 million dollars, almost 90 percent of it in Oregon, travelling and gaining access to hunting locations. Big game hunters spent over $37 million in-state, more than $125 per capita, for travel expenses such as food, lodging, and transportation. Small game hunters spent $8 million dollars in-state and migratory bird hunters spent $4 million dollars. Access-related expenditures, such as guide and access fees were not nearly so large, though small game hunters spent $1 million in-state, big game hunters spent close to $700,000, and migratory bird hunters spent $186,000.

In looking more closely at resident hunters of specific game species, we find that deer hunters are the largest group, with 283,000 sportsmen. Other groups include almost 105,000 elk hunters, close to 60,000 duck hunters, and 37,000 goose hunters. Deer were hunted throughout the state, though the regions hunted most often include the Willamette Valley (411) (968,000 days), the northeastern region (413) (470,000 days), and the southwestern region (416) (383,000 days). The majority of elk hunting occurred in the northeastern (413) (279,000 days) and the Willamette Valley regions (180,000 days). The Willamette Valley was the most often hunted region by duck and goose hunters (close to 144,000 and

Figure 3.
OREGON



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75,000 days, respectively), along with the north central and southwestern regions of Oregon.

Oregon has a relatively small group of special weapons hunters, including 19,000 bow and arrow hunters and close to 4,000 hunters who use a muzzle loader. Both bow and arrow and muzzle loader hunters spend most of their time hunting big game (86 percent and 61 percent of each groups hunting days, respectively), though muzzle loader hunters pursue migratory birds as well. Reasons for hunting given by these special weapons hunters center around obtaining meat, interacting with family or friends, and engaging in sport and recreation.

Anglers

Oregon had more than 800,000 sport fishing participants in 1980. Included in that total are more than 620,000 resident freshwater anglers and close to 257,000 saltwater fishermen. Oregon residents pursue a variety of fish species in their state and these angler groups include more than 528,000 trout fishermen, 219,000 freshwater salmon/steelhead anglers, 136,000 saltwater salmon anglers, almost 110,000 panfish anglers, 109,000 bass fishermen, and 57,000 rockfish fishermen.

Oregon anglers were introduced to fishing at an early age and have had many years of fishing experience. More than half of both freshwater and saltwater anglers began fishing by the time they were eight years old, and over 65 percent of both groups have participated at least 18 years.

Oregon anglers are not joiners of national conservation and fish and wildlife organizations, with less than 15 percent of both freshwater and saltwater fisherman groups being members of such organizations.

Resident anglers fish a variety of fishing locations such as man-made reservoirs and natural lakes and rivers, with freshwater anglers fishing most often on rivers and streams (433,000 anglers fished these locations), along with large man-made reservoirs and natural lakes. Half of Oregon's saltwater anglers fished deep sea locations, along with surf/shore and tidal/sound locations.

The amount of fishing done by resident fresh and saltwater anglers varies considerably among the fish and wildlife regions of the state (see Figure 8). Saltwater fishing occurs only along the Oregon coast, with about two-thirds of the more than 1 million days of in-state saltwater fishing occurring in the region which includes the north coast (411) and one-third along the southern coast (included in region 416). Most freshwater fishing occurs in the Willamette Valley (411) region with nearly 6.7 million freshwater fishing days recorded for this region. More than 2 million days were spent freshwater fishing in the southwest (416) region and over 1 million days in the north central (412) region of Oregon. The least fished region is the sparsley populated and arid southeast (414) region.

In 1980 Oregon resident anglers spent close to $120 million, 80 percent of it in-state, travelling and gaining access to fishing locations. Freshwater anglers spent over $77 million in-state, more than $120 per capita, for travel costs such as transportation and lodging, and another $1.8 million in-state for land access and other access-related items. Saltwater anglers spent over $18 million in-state for travel-related expenses and another $2.5 million dollars for package trip fees and other access-related costs.

In looking more closely at anglers of selected fish species, we find that trout anglers were the largest group, numbering 528,000 anglers.

Trout were fished throughout the state, though most often in the northwest region (411) (more than 4 million days) and southwest region (416) (more than 1 million days). Freshwater salmon and steelhead anglers (218,000 anglers) fished most often in the two coastal regions, with close to 2 million days of fishing in the Willamette Valley region (411) alone. Bass fishermen fished most often in the north coastal region (411) (765,000 days), north central region (412) (229,000 days), and northeastern region (413) (132,000 days), while panfish fishermen (110,000 anglers) fish most often along the north coastal region (more than 1 million days).

Oregon ice fishermen are a small group, numbering about 3,700 anglers, though they generated over 4,000 days of fishing in 1980. Like other anglers, more than half of this group had begun fishing by eight years old and have been fishing for more than 18 years. They, like other anglers are not joiners of fish and wildlife related organizations, with less than a quarter of them having membership in a conservation, hunting, or fishing related organization.

APPLICATIONS OF INFORMATION ABOUT USER GROUPS

The purpose of this section of the report is to describe ways which user segment data can be used by fish and wildlife managers. It is not the intent to describe all data implications, instead we present a framework for utilizing data from the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (NSFHWAR).

Recommendations made here about the use of NSFHWAR data are offered within the context of a model of recreation planning and management founded in "rational planning theory" (Banfield, 1959). The rational perspective guides planning conducted by most federal resource management agencies (Culhane and Friesema, 1979). General steps involved in this approach include developing goals, identifying feasible means to attain goals, determining the effects of implementing alternative means, and choosing the means which best lead to goal attainment.

Application of this approach in recreation management has been offered by Brown (1977) who identified three key decision points in the planning process; selection of management objectives which lead to goal attainment, selection of management actions which allow for fulfillment of objectives, and selection of modification in planned programs. Each decision point is ultimately guided by the desired goals of the planning effort.

Within the realm of recreation management, Driver and Brown (1978) have noted that the most important goals of recreation managers are 1) to provide recreation opportunities which are demanded and appropriate for the area being managed, 2) to prevent unacceptable damage to the resources, and 3) to protect users from serious harm. They also note that to develop objectives in meeting these goals managers need both social and biological information.

In the area of fish and wildlife management, biological information has traditionally served as the basis for decision making. However, to meet goals of providing desired opportunities, and to make more equitable, easily justifiable decisions, managers need information about users, i.e. social information. Managers need to understand their clients and the clients' preferences so they can provide the "products" that people want (Witter, 1980).

General conclusions found within the recreation literature suggest that 1) the product of a recreation engagement is the satisfactions or psychological benefits received by a person and 2) there is no typical recreationist; desired types of recreation vary in terms of the characteristics of people who engage in them, the satisfactions they receive, the activities they engage in, and the resource setting, social and managerial, they prefer. Consequently, a current emphasis within recreation research has been to provide information which would reveal the preferences of distinct user groups and the satisfactions they receive from their preferred experiences and to emphasize the uses of these data in the management and planning context.

Data from the NSFHWAR offers managers information which they can use in meeting goals of recreation management related to providing demanded opportunities. The remainder of this section illustrates some of these applications.

It should be recognized that it is unlikely that social survey data, such as that obtained in the NSFHWAR will yield "gee whiz" results. As noted by Witter (1980), reasonable expectations of such data are a) to confirm the view held by a commissioner, administrator or biologist, b) to better acquaint the professional with a situation, or c) to be filed away until a problem arises to which results apply more directly. Data will yield clues which will improve management. We advocate that the information will contribute to evaluating effectiveness, managerial feasibility, political acceptability, and equitability of policies being considered.

Developing Management Objectives

Critical activities done by planners and managers are formulating and selecting objectives to guide management. These objectives are measurable and attainable statements of goals and represent the targets which management actions are designed to achieve. For example, an agency may adopt a goal of increasing the user satisfaction gained from fishing. Objectives should answer specifically what that means. Questions to be addressed might include "What is the magnitude of increase that is important and realistic?" "Over what time do we want to consider an increase?" "What do we mean by satisfaction?", specifically, "What dimensions of satisfaction are important for management?". Answers to these questions would be found in objectives. For example one might establish objectives of "increasing the average catch of fish per person by one fish during the next five years." Assumptions in formulating the objective may be that 1) catching fish is related to a prominent satisfaction of the users being managed, 2) catching fish can be affected by management, and 3) a one fish increase in catch is a realistic target over a five year period.

Other objectives which clarify the goal are possible and a major activity of the planner is to determine which of the possible objectives clarifying the goal are relevant, given the biological, user, and management situations. Usually decisions about appropriate objectives involve considering information about user preferences, resource capabilities, institutional factors, and the existing situation (Brown 1977).

The NSHFWAR does not have all the user information the planner needs, as no survey with broad purposes would, but it does have some information that would be useful in formulating management objectives in several situations. A few such situations are described below.

Developing recreation experience objectives.

A goal of recreation management is to provide opportunities for satisfying recreation experiences. Prerequisite to meeting this goal is information about the preferred recreation experiences of user groups. The NSFHWAR offers some useful experiential information.

To illustrate, assume Montana adopts a goal of increasing the satisfaction obtained from big game hunting. Data from the survey relevant to this goal shows that for Montana big game hunters, obtaining meat is a dominant reason for hunting, with sport and recreation being of somewhat lesser importance. This suggests that objectives focused on increasing harvest of big game will be consistant with the goal of increasing user satisfaction. In contrast, if one were considering increasing satisfaction from big game hunting in California or New York, according to findings of the NSFHWAR, greater emphasis would need to be placed on developing opportunities to enhance sport and recreation (e.g. increasing access).

Another more specific example is provided when examining deer hunting in Oregon. Overall satisfaction ratings for deer hunters vary greatly according to the region in which hunting occurs. Hunter groups using the Willamette Valley reported lower satisfaction than hunters visiting other regions. Management efforts might focus on improving hunting in this region. In seeking possible improvements, managers might examine such things as the difficulty hunters encounter while hunting in the dense vegetation of the Oregon Coast Range, crowding, and the problems hunters have in obtaining access to the private lands of the Valley. Management may then provide ways to increase hunter opportunities for access and success and improving their hunting skills.

Data are also available to aid managers in meeting a goal of providing a diversity of recreational opportunities. For example, when Oregon big game hunters are segmented according to their most important reason for hunting, the largest group is comprised of individuals who cited "obtaining meat". Other large groups included those citing "being with family and friends", "sport", and "being close to nature". A relatively small segment cited "obtaining a trophy" as their most important reason for hunting; that group represented about 1 percent of the hunter population. Though a small group, managers should recognize and consider trophy hunters' interests. Objectives might be developed which address how the Department of Fish and Wildlife will meet the preferences of that specific group (e.g. special hunts, trophy areas).

Information such as this gives managers an idea of the hunter groups they serve and the satisfactions they receive. The objectives which are developed using these data will contribute to providing an array of opportunites desired by the public.

Developing economic development objectives

Wildlife related recreation is an important component of some local economies and justification for enhancing fishing and hunting opportunities may, in part, be based on expected economic stimulation. On the other hand, it is sometimes useful to be able to predict the economic impact of loosing opportunities for hunting and fishing. Data from the NSFHWAR offer a variety of information types regarding the expenditures of hunters which would be quite useful in constructing economic development objectives.

For example, while all categories of Oregon hunters spend large amounts of money on travel-related goods and services, big game hunters spent more on outfitters and equipment rental than did other hunters, while small game hunters spent more on land access fees than did other hunters. Thus, big game hunters especially support the outfitter segment of the economy while small game hunters provide income directly to land owners as they purchase access rights. Objectives to increase the participation of each group will lead to different goals. Expenditures for fishing show similar kinds of user group differences. For example, Oregon saltwater anglers spent proportionately more for package trip fees than did freshwater anglers.

Findings such as these should signal the need to consider different economic stimulation objectives for different kinds of hunting and fishing and to test the effects of both objectives and management actions on local and regional economies. One would want to know whether or not significant positive or negative effects would occur in important economic sectors.

Baseline comparisons as a means for constructing objectives

Construction of realistic and attainable objectives is made possible when consideration is given to current conditions. To aid in this process, the NSFHWAR offers a variety of information describing the existing situation regarding hunting and fishing at state, regional and national levels. This information can be a baseline against which proposed goals and objectives are compared.

A portion of the survey data describes the within-state geographical distribution of hunting and fishing by different groups. If one were to set a goal of increasing the amount of hunting in a particular region of a state, this survey information could be the base information for defining an increase for the user group of interest. Also, it might be used to determine if other regions might lose sportsmen to the region being emphasized. For example, there are currently 83,000 days of big game hunting in the Wrangell Mountain region of Alaska. If we were to consider an increase in big game hunting in this region over the next five years, we might realistically consider an increase of 1,000 days, 10,000 days or 25,000 days but probably not an increase of 100,000 days. One thousand days represents 1 percent, 10,000 days represents 12 percent, and 25,000 days represents 30 percent of big game hunting whereas 100,000 days would mean more than doubling the current hunter days. The baseline data aid in deciding what is realistic and in selecting the level of increase that would represent a measurable standard whose attainment could be evaluated.

Developing cooperative goals and objectives

Though the management of fish and wildlife is primarily a responsibility of state agencies, cooperation is an essential part of a successful management approach. This would include cooperation with landowners (both private and public) and also with fish and wildlife agencies in neighboring states. Data from the NSFHWAR may provide some descriptive data which are useful in establishing cooperative objectives.

At a regional level, each state's hunting and fishing pattern can be compared to the amounts and patterns for adjacent states and the total region to aid in identifying commonalities and differences among states and subregions within a larger region. For example, in the southern region of the U.S. about 70 percent of the anglers fish freshwater while 30 percent fish saltwater, with over 80 percent of the fishing trips being taken to freshwater sites. Freshwater fishermen fish in large reservoirs, rivers and streams, small reservoirs, and natural lakes/ponds. Saltwater anglers fish surf/shore areas, sounds and tidal areas, and deep sea areas. Louisiana, a state in the southern region, has similar proportions of freshwater and saltwater fisherman. Louisiana however, has a larger proportion of freshwater fishing occurring in natural lakes and ponds. Regional programs might take into account such differences.

Cooperation with land management agencies might be particularly important in attempts at providing nonconflicting types of recreation at a given location. An illustration of how NSFHWAR data might aid in achieving this is provided when examining the type of land hunted by various user groups in Oregon. Big game hunters rely most heavily on federally owned lands while migratory bird hunters rely most heavily on locally owned public lands. This suggests that when managers are developing objectives for meeting the needs of big game hunters, it would be useful to work cooperatively with the major land management agencies, the U.S. Forest Service and Bureau of Land Management.

Resource planning in the 70's and 80's emphasizes integrated resources planning. Fish and wildlife agencies' cooperation with land managers to provide recreation will alleviate potential conflicts which arise due to conflicting objectives. Data from the NSFHWAR may give clues about areas of needed cooperation among agencies.

Developing Management Actions

Once management objectives have been agreed upon, one needs to decide the best means to achieve them. There is usually a wide range of management actions available for consideration. Some deal with manipulating biological and physical environments, some deal with regulatory actions by management, and others emphasize influencing user behavior.

Making decisions about appropriate management actions is usually aided by having information on the character of the area (facilities, physiographic elements, wildlife, etc.), the perceptions of users regarding alternative management actions and their effect on behavior, the institutional directives affecting the agency and situation, and the existing situation (Brown 1977). Information from users is particularly relevant to knowing about user perceptions and the existing situation, and information obtained by the NSFHWAR is almost exclusively of the latter type. It is particularly good for describing the present users and what they do. Below are a few ways this information from the national survey might be used in identifying and selecting management actions.

Development of regulations

Development and enforcement of regulations are undoubtedly the most effective and frequently used management tools for achieving many wildlife recreation objectives. Over the past decade there has been a trend toward user specific regulations (e.g. different regulations based on methods of taking wildlife) and resource specific regulations (e.g. different regulations for different areas or rivers). Information from the NSFHWAR may aid managers by giving them clues about the types of user groups which will be affected and the types of impacts which will occur for a given regulation.

One area where the data might be of assistance is in determining season length. By comparing harvest figures with effort information, it is possible to obtain clues about what the effect of lengthening seasons may be for any specific user group. For example, the data show that bow and arrow hunters in New York spent more total days hunting for big game (931,600 days) than did muzzle loaders hunters (119,100 days). Using these data with harvest figures would show that muzzle loader hunters have a much lower harvest per effort ratio than do bow and arrow hunters. A longer season may be neccessary to reach desired or equitable harvest levels for muzzle loader hunters.

The data might also aid managers in enforcement of regulations. One important decision is what manpower allocations should be made to achieve a distribution of game officers, proportional to existing recreation use for different user groups. Data are available within the survey which yield amount of use by region for user groups identified by the species they pursued. For example, New York trout fishermen spent the largest proportion of days fishing within three of the state's seven regions (368, 364, 365). Each of these regions had approximately 20 percent of the total days spent trout angling. This proportion may prove useful in scheduling patrolling efforts in the state during trout season.

In establishing regulations, particularly special regulations, managers should attempt an analysis of the types of user groups who will be affected and how they will be affected. These few illustrations suggest that NSFHWAR data may aid in that type of analysis.

Resource enhancement and access improvement

Managers are frequently faced with the problem of how to increase the supply of hunting and fishing opportunities for the public. Two frequent approaches to this include enhancing the resource in order to provide fish and game, and providing public access to these resources. Data from the NSFHWAR may aid managers in determining where to increase efforts to maximize increased participation for specific user groups. Managers might compare current supply of opportunities within a region (e.g. acres of available land, accessible stream miles), with current uses to make some estimation of where high resource utilization is occurring (relative to resource capacity). This may give some information to aid in setting priorities for land and access acquisition or resource development plans.

Allocation and pricing of licenses

One of the most volatile issues in wildlife management stems from the pricing and allocation of licenses. Current issues faced by managers include questions such as "should there be a license required for saltwater fishing groups?" "what price should be charged for a license?" and "what might the effect be of increasing license sales for certain user groups?". Data from the NSFHWAR will not provide answers to these questions but may provide information to aid in their analysis. For example, Michigan big game hunters were found to have spent, on the average, $119 per capita for in-state travel and access expenses. Such information can be used with average participation figures to arrive at an average of between $13 and $24 per hunting trip. This figure can be used in projecting the impact to local economies of increases or decreases in numbers of big game hunters and the number of trips they take.

In another situation, the state of Oregon is considering the effect of requiring a fishing license for saltwater anglers. Data show that 257,000 Oregon residents engage in some type of saltwater fishing. Certainly a large proportion of these anglers hold licenses for fishing, however this figure may be useful in estimating the revenue generated through the sale of a special license required for saltwater angling.

Allocation and pricing of licenses will certainly remain an important issue for fish and wildlife agencies. Efforts to adopt new licensing which include analyses of the user groups effected are more likely to be justifiable to the public.

Information and education

Many of the problems associated with management of fish and wildlife in the United States are related to problems of information dispersal and sportsman education. As a management action to aid in meeting objectives, information dispersal is notably difficult to evaluate and not always guaranteed effective. As suggested by Mendelsohn (1979) one concern of media campaigns should be understanding the people receiving the information, including their demographic and psychological attributes and their belief system.

The NSFHWAR data concerning the characteristics and demographic origins of some user groups which may aid in planning communication efforts. For example, data which may be useful reveals the out-of-region origin of hunter groups. For example, data from the northeastern region of the U.S.suggests that a high proportion of out-of-region deer hunters originate in the western, southern and midwestern regions. Communication with deer hunters should concentrate more heavily on those regions.

Other information about specific user groups may aid in targeting people for communication. More effective communication will result from knowing for whom information is intended and where they reside.

Selecting Modifications in Programs

Implementation of management actions designed to achieve specific objectives is the culmination of the management planning process. It will have effects and the good manager will ask whether or not the actions are effective, and whether or not the objectives remain relevant. Thus, implementation of actions should lead to evaluation and evaluation can often lead to recognizing the need to modify programs. The kinds of information useful for selecting program modifications are the same kinds useful for selecting management objectives and actions. Sometimes user information is what is needed.

Effective program evaluation can occur when baseline data exists, management objectives have been selected, and information comparable to the baseline data has been collected after program implementation. The NSFHWAR data can be useful as baseline or followup data, however, as followup data it, of course, requires previously collected data of a similar nature. For example, if New York had established a program to increase migratory bird hunters' days afield on state refuges they could compare data collected in their planning year to the 1980 survey data (i.e. 41,000 days) to aid in program evaluation.

Unfortunately, many states may not have data from earlier years and in such cases the 1980 survey data can serve as a baseline against which future objectives and data can be compared. Particularly useful would be participation information such as number of hunters per user group, number of days and hunting per region for each hunter group.

Conclusion

We have illustrated applications of NSFHWAR data concerning consumptive recreation users of fish and wildlife in the United States. There are certainly other applications of data which will be recognized by planners and managers within fish and wildlife management agencies. User group data for the nation, regions within the nation, and selected states are located in the Appendices. Furthermore, individual state agencies may wish to obtain raw data for analyses specific to their problems. In each case the survey offers social information which managers can use to aid in effective planning and management of fish and wildlife for recreation.

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Appendix A: National Data

Table 3 . Selected characteristics, sportsmen and nonsportsmen nation-wide, 1980.

Characteristic	Sportsmen[a] (percent)	Nonsportsmen[b] (percent)
Marital Status[c]		
Married	65.6	56.5
Widowed	2.2	9.3
Divorced	5.1	5.8
Separated	1.5	2.1
Never Married	25.7	26.2
Sex[d]		
Male	70.5	39.0
Female	29.5	61.0
Education		
None	.2	.7
Kindergarten	.5	.7
Elementary	23.9	24.7
High school	46.6	45.7
College	28.8	28.2
Average age[d]	31.9 years	38.1 years
Population growing up[e]		
Large urban	14.9	22.2
Medium urban	17.0	18.9
Small city	18.2	17.7
Small town	19.9	18.2
Rural	30.1	23.0
Employed[e,f]		
Yes	68.9	52.6
No	30.1	47.4
Race[d]		
White	92.0	83.0
Black	5.9	13.6
American Indian, Aleut, Eskimo	.6	.5
Asian, Pacific Islander	1.1	1.9
Other	.5	1.0
Site of residence[d]		
Urban	60.4	72.7
Rural	39.6	27.3
Average household size[d]	3.6 persons	3.4 persons

[a] U.S. population age 6 years old and older who hunted or fished in 1980.

[b] U.S. population age 6 years old and older who did no hunting or fishing in 1980.

[c] Persons 14 years old and older.

[d] Persons 6 years old and older.

[e] Persons 16 years old and older.

[f] Have a job or own a business. Excludes persons who are retired, going to school, or keeping house.

Table 4 . Number of trips and days of participation in regions nation-wide[a], hunter groups defined by type of game, 1980.

Hunter segment[b]	Trip	Days Total	Days Mean	No. of hunters
Region 1				
Big game	6,371,170	9,346,763	8	1,091,777
Small game	9,650,881	10,246,575	9	1,039,900
Migratory birds	4,382,208	4,996,874	7	666,926
Other animals	1,252,713	1,268,946	8	147,872
Region 2				
Big game	6,083,974	8,526,873	7	1,169,955
Small game	15,991,311	16,661,970	12	1,373,875
Migratory birds	6,578,385	7,090,780	7	938,637
Other animals	4,048,544	4,227,338	12	335,566
Region 3				
Big game	18,308,817	23,542,628	8	2,753,005
Small game	40,843,329	42,745,393	12	3,395,715
Migratory birds	7,797,216	8,376,662	8	956,593
Other animals	968,693	9,993,766	15	665,701
Region 4				
Big game	29,804,739	33,725,162	12	2,670,509
Small game	40,776,248	41,613,694	12	3,215,372
Migratory birds	11,315,673	11,952,946	7	1,545,981
Other animals	9,415,253	9,476,380	16	562,051
Region 5				
Big game	26,094,042	29,962,451	9	3,297,850
Small game	27,166,687	27,814,506	11	2,502,552
Migratory birds	5,630,446	5,818,225	8	721,244
Other animals	10,014,704	10,277,522	15	683,375
Region 6				
Big game	4,366,438	7,014,071	6	1,002,805
Small game	10,158,338	11,379,503	10	1,082,426
Migratory birds	4,043,005	4,324,899	8	504,039
Other animals	2,990,141	3,118,311	12	257,096
Region 7				
Big game	270,212	482,362	9	52,014
Small game	449,237	465,973	13	34,309
Migratory birds	108,447	137,460	6	22,184
Other animals	56,318	67,295	18	3,687
TOTAL				
Big game	91,358,800			11,806,000
Small game	145,167,000			12,362,000
Migratory birds	39,960,000			5,311,000
Other animals	37,468,000			2,642,000

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[a] U.S. Fish and Wildlife Service Regions. See Figure 1 for a map.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group. Inclusion in a segment and amount of participation are based on information on hunting within the United States in hunter's five most often hunted locations.

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Table 5 . Age of introduction to hunting[a] for hunting groups nation-wide, 1980.

Hunter segment[b]	Age of introduction[c] 01-12	13-19	20-29	30-39	40-98	Average age
	------------------ Number of hunters	------------------	------------------	------------------	------------------	
Big game	6,035,219	4,694,619	722,533	204,232	90,021	13.4
Deer	5,790,451	4,577,238	691,023	199,050	86,082	13.4
Elk	447,819	230,185	48,755	17,600	7,634	13.0
Antelope	64,492	37,850	8,531	2,878	5,824	14.7
Moose	9,138	5,576	88	--	633	12.2
Bear	324,356	192,757	28,902	3,340	--	12.3
Turkey	925,980	458,788	42,767	21,638	17,483	12.5
Mountain goat	2,880	--	--	--	--	9.4
Mountain sheep	2,037	2,080	--	--	--	11.6
Alaska big game	28,237	11,952	5,157	72	--	12.3
Hawaii big game	11,560	5,776	2,082	--	661	14.7
Small game	6,904,329	4,629,921	587,081	104,220	57,813	12.7
Rabbit	4,237,640	2,899,850	309,705	49,467	30,330	12.6
Quail	2,424,715	1,057,686	115,848	29,835	9,585	11.6
Grouse	1,304,223	854,050	82,869	20,874	10,604	12.8
Chuckar	364,736	221,648	45,124	10,443	9,944	13.4
Squirrel	3,684,063	2,319,814	239,988	36,258	23,130	12.4
Pheasant	2,261,216	1,671,559	193,021	36,478	17,246	13.0
Alaska small game	21,227	7,133	3,758	485	--	12.5
Hawaii small game	7,480	3,692	934	--	484	14.7
Migratory birds	3,362,736	1,616,975	215,088	62,156	21,941	12.1
Geese	867,689	435,864	45,063	9,328	10,124	12.0
Duck	1,742,855	812,778	102,790	27,216	16,777	12.0
Coot, rail	89,812	42,935	1,270	--	--	11.0
Woodcock	279,649	200,899	6,099	1,759	--	12.3
Dove	2,031,870	798,781	128,938	40,725	7,268	11.8
Pigeon	70,351	14,611	--	--	--	10.2
Alaska migratory birds	13,671	5,314	812	377	--	11.4
Hawaii migratory birds	704	1,162	189	--	--	14.6
Other animals	1,687,519	860,510	50,915	10,049	11,335	11.6
Crow	306,947	153,426	14,423	2,712	--	11.7
Woodchuck	404,697	267,714	8,447	5,854	4,960	12.5
Raccoon	748,509	322,850	18,009	3,418	5,232	11.2
Fox	362,520	167,994	1,553	--	--	11.1
Coyote	461,578	176,078	14,282	652	--	11.0
Alaska fur bearers	1,890	568	301	305	--	12.9
Other	526,960	234,544	33,802	10,676	1,143	11.7
Bow hunters	1,174,099	723,769	92,581	14,592	1,869	12.4
Muzzle loader hunters	495,965	284,342	38,874	6,824	2,750	12.3
Pistol hunters	806,025	454,397	46,075	5,893	1,918	11.9

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[a] Introduction to hunting in general, not a particular species, game type, or using special weapons.

[b] Hunter segments defined by type of game, species hunted, and special weapon hunters. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 6 Years of hunting experience[a] of hunting groups nation-wide, 1980.

Hunter segment[b]	Years hunting 1-9	 10-19	 20-98	Average years
	-------number of hunters-------			
Big game	3,194,252	3,396,379	5,104,558	19.5
Deer	3,093,823	3,299,921	4,899,158	19.4
Elk	158,851	203,079	390,791	21.7
Antelope	31,589	30,898	56,742	19.7
Moose	1,447	3,590	10,398	27.0
Bear	117,888	189,836	241,255	19.4
Turkey	274,049	447,006	744,986	22.1
Mountain goat	474	225	2,181	26.9
Mountain sheep	547	1,675	1,895	20.2
Alaska big game	11,578	18,325	15,757	17.4
Hawaii big game	10,100	5,331	4,196	12.6
Small game	3,680,263	3,453,114	5,037,220	19.0
Rabbit	2,467,415	2,222,252	2,796,470	17.6
Quail	924,986	1,056,276	1,628,318	19.7
Grouse	591,809	716,053	963,177	19.2
Chuckar	189,537	160,367	300,719	20.1
Squirrel	1,965,168	1,915,034	2,404,806	18.3
Pheasant	1,314,328	1,149,104	1,698,325	18.3
Alaska small game	7,566	14,311	10,841	16.3
Hawaii small game	8,496	1,765	2,329	11.4
Migratory birds	1,520,632	1,626,212	2,108,433	18.3
Geese	329,542	411,206	626,859	19.7
Duck	749,580	836,694	1,103,892	18.6
Coot, rail	43,251	42,687	47,708	16.7
Woodcock	135,390	187,488	165,157	17.2
Dove	835,649	953,633	1,197,723	18.2
Pigeon	19,065	21,082	44,444	18.6
Alaska migratory birds	3,410	10,008	6,871	17.6
Hawaii migratory birds	1,337	189	489	12.4
Other animals	747,773	852,645	1,000,789	18.3
Crow	161,830	150,762	160,196	16.4
Woodchuck	181,044	226,636	283,992	18.8
Raccoon	306,090	360,062	428,919	18.8
Fox	136,242	189,633	202,131	18.5
Coyote	184,054	225,218	235,133	17.3
Alaska fur bearers	878	984	1,317	17.9
Other	233,132	246,645	323,129	19.0
Bow hunters	527,215	755,455	722,113	16.9
Muzzle loader hunters	176,288	248,303	398,193	20.3
Pistol hunters	359,933	482,276	467,880	17.5

[a] Years spent hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by type of game, species hunted, and special weapon hunters. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

Table 7 . Most important reason for hunting[a] given by hunter groups nation-wide, 1980.

Hunting segments[b]	Most important reason[c] Obtain meat	Problem animals	Friends family	Sport/ recr.	Close to nature	Obtain trophy	Other
	Number of hunters						
Big game hunters	3,036,154	40,739	1,145,888	6,191,235	1,075,764	154,577	51,388
Deer	2,901,720	40,343	1,111,557	5,986,566	1,048,998	152,827	50,357
Elk	310,261	591	54,319	307,280	58,829	19,105	2,369
Antelope	54,042	--	7,344	38,477	9,728	6,034	1,764
Moose	8,615	--	--	2,196	2,952	1,105	567
Bear	148,434	2,639	26,456	279,981	70,020	14,406	1,228
Turkey	303,101	3,104	137,307	829,147	167,335	17,804	7,799
Mountain goat	2,640	--	--	240	--	--	--
Mountain sheep	1,603	--	--	1,599	--	915	--
Alaska big game	32,433	--	841	9,262	2,466	92	284
Hawaii big game	10,480	--	1,678	6,495	1,426	--	--
Small game hunters	2,672,183	99,901	1,196,281	6,984,363	1,134,935	103,314	60,620
Rabbit	1,701,815	66,233	674,543	4,260,996	720,364	65,679	23,759
Quail	734,781	32,438	331,950	2,100,733	374,846	20,988	22,304
Grouse	469,838	5,157	213,910	1,285,949	256,086	16,486	14,012
Chuckar	139,575	1,017	50,265	366,819	85,323	5,191	585
Squirrel	1,483,974	51,596	493,100	3,538,308	645,972	63,913	22,824
Pheasant	756,694	11,733	415,939	2,512,602	409,450	26,184	28,042
Alaska small game	19,144	--	723	8,434	3,725	--	284
Hawaii small game	7,643	290	484	3,987	186	--	--
Migratory bird hunters	1,039,871	24,884	526,467	3,074,421	515,799	60,559	16,294
Geese	224,278	6,097	125,315	838,855	145,868	19,887	4,257
Duck	540,104	8,896	242,296	1,611,773	246,326	33,525	5,875
Coot, rail	23,942	2,097	12,952	71,801	16,737	3,189	784
Woodcock	78,845	152	34,161	291,522	67,489	9,679	723
Dove	566,334	15,478	307,171	1,776,481	283,356	38,571	10,453
Pigeon	28,714	--	3,815	34,684	17,749	--	--
Alaska mig.birds	14,223	--	604	3,905	1,127	--	179
Hawaii mig.birds	409	--	--	1,646	--	--	--
Other animal hunters	593,405	84,644	205,896	1,423,718	252,055	39,482	20,528
Crow	89,533	14,061	48,205	237,407	76,548	10,030	4,487
Woodchuck	136,528	32,168	45,321	363,472	92,907	14,910	5,153
Raccoon	265,606	22,548	76,109	622,029	78,288	23,972	10,619
Fox	127,950	9,988	34,103	303,231	49,012	5,857	1,926
Coyote	183,464	16,619	37,472	329,358	62,576	13,992	6,202
Alaska fur bearers	2,085	--	99	717	278	--	--
Other	181,911	27,647	82,122	390,286	90,234	18,853	9,384
Bow hunters	460,901	11,043	124,314	1,054,216	298,045	45,540	8,293
Muzzle loader hunters	194,720	5,822	69,869	465,362	76,586	7,251	5,945
Pistol hunters	329,011	47,135	93,293	660,964	149,315	24,560	9,266

[a] Reasons for hunting in general, not hunting a particular species, game type or using special weapons.

[b] Hunter segments defined by type of game, species hunted, and special weapon hunters. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 8 . Second most important reason for hunting[a] given by hunter groups nation-wide, 1980.

Hunter segments [b]	Second most important reason[c]						
	Obtain meat	Problem animals	Friends family	Sport/ recr.	Close to nature	Obtain trophy	Other
	Number of hunters						
Big game hunters	2,662,422	148,124	2,457,446	2,986,778	2,431,330	603,313	84,367
Deer	2,592,714	144,612	2,355,641	2,897,518	2,334,433	586,599	77,677
Elk	163,376	15,876	130,576	218,483	156,685	45,260	5,602
Antelope	30,135	2,870	17,856	40,999	17,819	5,675	208
Moose	4,204	1,174	620	5,872	320	2,240	--
Bear	118,816	10,394	110,405	141,978	111,039	29,261	965
Turkey	292,960	25,223	308,554	337,478	330,649	123,144	6,078
Mountain goat	57	--	622	2,018	183	--	--
Mountain sheep	630	--	471	1,566	654	796	--
Alaska big game	6,425	581	6,404	17,284	8,413	437	603
Hawaii big game	4,252	799	2,323	4,245	2,786	5,485	189
Small game hunter	2,717,080	218,338	2,836,258	2,969,856	2,604,188	440,474	117,702
Rabbit	1,726,653	164,208	1,652,091	1,854,741	1,577,842	278,622	47,266
Quail	826,578	72,729	923,835	852,998	719,654	108,437	22,546
Grouse	468,639	38,669	492,128	519,321	592,880	100,214	7,936
Chuckar	142,935	12,174	142,782	166,072	153,359	22,288	3,481
Squirrel	1,483,652	130,572	1,274,043	1,557,720	1,388,228	268,042	56,826
Pheasant	875,779	76,380	1,021,933	935,390	975,955	157,792	32,478
Alaska small game	6,791	407	4,468	10,541	7,139	349	459
Hawaii small game	2,614	--	769	2,568	1,382	5,257	--
Migratory bird hunters	1,145,008	95,484	1,273,021	1,324,927	1,052,792	211,245	24,331
Geese	314,067	24,264	331,477	319,121	296,325	47,088	1,629
Duck	604,148	51,046	644,205	644,501	559,760	114,733	14,989
Coot, rail	30,497	6,574	30,582	31,141	26,494	4,493	214
Woodcock	108,012	10,694	81,805	125,930	118,910	31,323	--
Dove	655,671	55,299	748,162	740,361	580,752	121,182	9,983
Pigeon	17,314	619	25,831	22,020	9,578	--	--
Alaska mig.birds	2,081	407	2,706	6,764	5,129	72	--
Hawaii mig.birds	880	--	--	194	585	--	--
Other animal hunters	567,371	148,015	478,907	642,925	548,863	126,496	36,505
Crow	100,066	25,130	77,378	129,245	102,664	31,028	2,643
Woodchuck	146,322	55.904	110,146	145,251	180,972	38,523	703
Raccoon	254,888	42,566	211,711	265,050	219,386	45,817	28,396
Fox	126,322	27,924	80,309	114,804	127,722	35,851	4,522
Coyote	142,225	48,534	113,085	164,538	131,819	29,131	4,240
Alaska fur bearers	823	--	309	702	978	--	367
Other	158,786	49,365	154,222	207,155	155,784	40,498	5,935
Bow hunters	468,205	21,991	383,393	482,003	460,441	143,089	5,315
Muzzle loader hunters	192,037	19,001	154,471	180,410	206,820	41,982	8,709
Pistol hunters	262,432	46,610	282,949	365,788	272,945	39,576	20,135

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[a] Reasons for hunting in general, not hunting a particular species, game type or using special weapons.

[b] Hunter segments defined by type of game, species hunted, and special weapon hunters. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

[c] Dashes indicate that no person in the sample reported information on this item.

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Table 9 . Days of hunting on public land by hunter groups defined by type of game, 1980.

Land Ownership	Big game	Small game	Migratory birds	Other animals[b]
		Hunter segment[a]		
Federally owned	17,400,000	8,981,000	2,589,000	1,766,000
State owned	14,954,000	12,286,000	4,351,000	1,663,000
Locally owned	9,113,000	12,396,000	3,778,000	2,767,000
Unknown onwership	4,415,000	4,456,000	1,602.000	858,000
Total days on public land	45,881,000	39,118,000	12,321,000	7,055,000

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

[b] Includes crow, woodchuck, raccon, fox, coyote, and others.

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Table 10. Expenditures made by hunter groups defined by type of game, 1980.

	Expenses (thousands of dollars)		
Hunter segment[a]	Travel[b]	Equipment	Access related[c]
Big game	1,444,237	861,607	57,228
Small game	867,508	650,804	13,718
Migratory birds	349,328	202,693	15,356
Other animals[d]	122,832	93,054	671

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear and be counted in more than one group.

[b] Includes food, lodging, and transportation costs.

[c] Includes guide fees, pack trip or package fees, and private or public land use or access fees.

[d] Includes crow, woodchuck, raccoon, fox, coyote, and others.

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Table 11 . Hunters and days of participation in regions nation-wide[a], hunter groups defined by species hunted, 1980.

Hunter segment[b]	Region 1			Region 2			Region 3		
	Number of hunters[c]	Days[c]		Number of hunters[c]	Days[c]		Number of hunters[c]	Days[c]	
		Total	Mean		Total	Mean		Total	Mean
Deer	1,010,366	7,310,508	7	1,121,647	7,744,068	6	2,712,342	22,632,074	8
Elk	307,423	1,894,138	6	27,017	175,340	6	--	--	--
Antelope	16,568	86,726	5	5,667	31,711	5	--	--	--
Moose	2,095	10,480	5	--	--	--	567	5,111	9
Bear	87,810	828,138	9	17,990	110,104	6	48,364	350,738	7
Turkey	22,560	96,746	4	214,781	1,433,415	6	141,440	758,387	5
Mountain goat	474	474	1	--	--	--	--	--	--
Mountain sheep	1,598	15,044	9	--	--	--	--	--	--
Alaska big game	--	--	--	--	--	--	--	--	--
Hawaii big game	20,079	207,996	10	--	--	--	--	--	--
Rabbit	422,046	3,738,646	8	724,962	8,819,754	12	2,349,396	23,811,497	10
Quail	475,740	3,995,405	8	864,960	7,887,885	9	599,492	6,060,012	10
Grouse	219,587	1,800,924	8	15,805	93,188	5	817,986	7,559,515	9
Chuckar	198,009	1,333,418	6	2,079	15,093	7	190,813	2,056,526	10
Squirrel	150,698	1,106,661	7	535,817	6,217,864	11	1,671,495	17,608,168	10
Pheasant	484,970	3,601,809	7	158,565	739,859	4	1,614,233	13,035,699	8
Alaska small game	--	--	--	--	--	--	--	--	--
Hawaii small game	12,590	230,637	18	--	--	--	--	--	--
Geese	198,115	1,820,894	9	110,601	688,887	6	452,386	3,798,544	8
Duck	378,329	3,129,317	8	301,032	2,216,123	7	698,723	5,808,945	8
Coot, rail	23,631	234,345	9	7,072	44,610	6	35,255	291,198	8
Woodcock	2,300	61,311	26	1,386	1,386	1	199,505	1,434,224	7
Dove	374,394	2,258,596	6	817,710	5,577,096	6	152,454	1,012,790	6
Pigeon	77,308	648,114	8	3,142	13,289	4	1,979	6,275	3
Alaska migratory birds	--	--	--	--	--	--	--	--	--
Hawaii migratory birds	2,055	18,869	9	--	--	--	--	--	--
Crow	26,260	344,123	13	63,649	518,881	8	88,841	980,689	11
Woodchuck	21,204	147,047	16	1,590	19,085	12	155,028	2,439,175	15
Raccoon	10,723	164,497	15	142,071	1,490,478	10	330,803	5,150,894	15
Fox	6,098	27,109	4	32,655	507,870	15	232,960	2,169,806	9
Coyote	106,825	870,326	8	171,476	2,320,151	13	150,209	1,997,785	13
Alaska fur bearers	--	--	--	--	--	--	--	--	--
Other	115,203	647,124	5	178,686	1,754,706	9	105,482	1,909,994	18

Table 11 . Continued.

Hunter segment[b]	Region 4 Number of hunters[c]	Region 4 Days[c] Total	Region 4 Days[c] Mean	Region 5 Number of hunters[c]	Region 5 Days[c] Total	Region 5 Days[c] Mean	Region 6 Number of hunters[c]	Region 6 Days[c] Total	Region 6 Days[c] Mean
Deer	2,624,911	32,054,885	12	3,273,977	27,691,283	8	856,602	4,937,572	5
Elk	--	--	--	--	--	--	427,119	2,914,121	6
Antelope	--	--	--	--	--	--	97,340	367,738	3
Moose	--	--	--	6,074	28,743	4	5,076	54,465	10
Bear	54,378	307,341	5	306,914	1,893,931	6	33,502	311,654	9
Turkey	340,177	2,660,127	7	735,279	4,814,155	6	28,900	100,646	3
Mountain goat	--	--	--	--	--	--	2,134	7,163	3
Mountain sheep	--	--	--	--	--	--	2,381	21,939	9
Alaska big game	--	--	--	--	--	--	--	--	--
Hawaii big game	--	--	--	--	--	--	--	--	--
Rabbit	1,905,258	19,975,599	10	1,821,317	17,471,789	9	446,244	4,703,231	10
Quail	1,121,221	12,520,785	11	368,519	3,462,673	9	307,160	3,016,383	9
Grouse	78,315	468,780	5	926,667	9,110,009	[illegible]	248,261	1,824,246	7
Chuckar	8,439	37,200	4	156,781	1,723,531	10	100,567	1,026,921	10
Squirrel	2,428,750	25,692,170	10	1,464,872	13,779,451	9	136,583	1,553,639	11
Pheasant	22,116	85,655	3	1,169,716	10,524,482	8	791,298	6,512,529	8
Alaska small game	--	--	--	--	--	--	--	--	--
Hawaii small game	--	--	--	--	--	--	--	--	--
Geese	116,635	930,568	7	263,883	2,043,800	7	261,202	2,205,444	8
Duck	639,930	5,289,171	8	370,044	2,687,011	7	374,652	2,948,261	7
Coot, rail	31,905	298,353	9	17,572	141,852	8	18,640	187,958	10
Woodcock	77,061	636,215	8	211,571	1,619,775	7	625	1,251	2
Dove	1,224,356	6,823,243	5	273,745	1,723,340	6	203,123	1,358,685	6
Pigeon	2,549	4,073	1	371	5,574	15	5,443	106,960	19
Alaska migratory birds	--	--	--	--	--	--	--	--	--
Hawaii migratory birds	--	--	--	--	--	--	--	--	--
Crow	113,202	1,073,136	9	164,275	1,403,232	8	26,681	209,832	7
Woodchuck	77,138	1,490,428	19	444,976	6,239,327	14	13,443	107,605	8
Raccoon	359,225	6,467,998	18	236,135	4,387,984	18	46,094	735,966	15
Fox	61,727	993,027	16	137,479	1,424,681	10	68,162	886,153	13
Coyote	30,585	343,508	11	20,700	250,114	12	179,715	1,783,902	9
Alaska fur bearers	--	--	--	--	--	--	--	--	--
Other	232,368	3,229,237	13	80,236	1,005,865	12	104,365	1,406,598	13

Table 11 . Continued.

Hunter segment[b]	Region 7			Total[d]		
	Number of hunters[c]	Days[c]		Number of hunters[c]	Days[e]	
		Total	Mean		Total	Mean
Deer	4,103	15,550	3	11,400,000	102,496,000	9
Elk	--	--	--	760,000	4,984,000	7
Antelope	--	--	--	120,000	486,000	4
Moose	1,623	14,222	8	50,000	351,000	7
Bear	1,969	9,453	4	561,000	3,932,000	7
Turkey	--	--	--	1,471,000	9,875,000	7
Mountain goat	272	644	2	3,000	8,000	3
Mountain sheep	138	1,248	9	4,000	38,000	9
Alaska big game	46,250	569,262	12	46,000	569,000	12
Hawaii big game	--	--	--	20,000	208,000	10
Rabbit	754	4,984	6	7,581,000	78,794,000	10
Quail	--	--	--	3,671,000	36,989,000	10
Grouse	272	1,676	6	2,309.000	21,440,000	9
Chuckar	--	--	--	659,000	6,209,000	9
Squirrel	57	804	14	6,329,000	65,962,000	10
Pheasant	--	--	--	4,214,000	34,655,000	8
Alaska small game	33,226	851,941	25	33,000	852,000	26
Hawaii small game	--	--	--	12,000	23,000	18
Geese	1,306	8,618	6	1,397,000	11,572,000	8
Duck	2,320	11,613	5	2,736,000	22,202,000	8
Coot, rail	--	--	--	134,000	1,198,000	9
Woodcock	--	--	--	491,000	3,754,000	8
Dove	318	956	3	3,026,000	18,775,000	6
Pigeon	--	--	--	86,000	784,000	9
Alaska migratory birds	20,289	203,096	10	20,000	203,000	10
Hawaii migratory birds	--	--	--	2,055	19,000	9
Crow	--	--	--	481,000	4,530,000	9
Woodchuck	--	--	--	702,000	10,443,000	15
Raccoon	--	--	--	1,103,000	18,389,000	16
Fox	184	1,849	10	536,000	6,032,000	11
Coyote	--	--	--	655,000	7,610,000	11
Alaska fur bearers	3,179	160,492	50	3,000	160,000	51
Other	690	3,089	4	880,000	10,387,000	12

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[a] U.S. Fish and Wildlife Service Regions. See Figure 1 for a map.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group. Inclusion in a segment and amount of participation are based on information on hunting within the United States in hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Source of total numbers of hunters and days of participation: U.S. Fish and Wildlife Service and U.S. Bureau of the Census. 1980 National Survey of Fishing, Hunting and Wildlife-related Recreation. U.S. Government Printing Office, Washington, D.C., 1982.

Table 12. Days of participation by special weapon hunters,1980.

Hunter segment[a]	Game hunted				Number of hunters
	Big game	Small game	Migratory birds	Other game[b]	
	days of participation				
Bow/arrow	15,207,097	1,144,038	78,580	111,034	2,015,000
Muzzle Loader	3,044,262	1,263,554	208,046	502,131	833,000
Pistol	1,864,555	5,471,559	57,800	2,543,830	1,315,000

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear and be counted in more than one group.

[b] Includes crow, woodchuck, raccoon, fox, coyote, and others.

Table 13. Number of trips and days of participation in regions nation-wide[a], angler groups defined by type of fishing, 1980.

Angler/segment[b]	Trip[c]	Days[c]		No. of fishermen[c]
		Total	Mean	
Region 1				
Great Lakes	--	--	--	--
Freshwater	63,210,217	77,820,210	16	4,825,723
Saltwater	25,514,255	27,255,928	9	2,976,668
Region 2				
Great Lakes	--	--	--	--
Freshwater	55,651,648	67,367,432	16	4,017,106
Saltwater	15,949,884	17,731,862	17	1,037,500
Region 3				
Great Lakes	29,249,024	33,090,225	13	2,511,398
Freshwater	159,138,424	185,498,098	18	10,047,554
Saltwater	1,886	762	--	1,695
Region 4				
Great Lakes	--	--	--	--
Freshwater	176,031,496	190,419,644	19	9,570,335
Saltwater	41,886,961	49,263,466	11	4,272,745
Region 5				
Great Lakes	6,469,976	7,441,641	14	525,366
Freshwater	91,685,333	100,268,805	17	5,688,165
Saltwater	45,154,562	49,120,555	12	3,947,750
Region 6				
Great Lakes	--	--	--	--
Freshwater	35,482,397	44,640,095	14	3,044,777
Saltwater	930	1,070	1	930
Region 7				
Great Lakes	--	--	--	--
Freshwater	1,912,582	2,396,469	14	169,916
Saltwater	777,766	1,002,198	9	105,722
Total[d]				
Great Lakes	35,720,000			3,016,000
Freshwater	584,811,000			35,308,000
Saltwater	130,667,000			12,344,000

[a] U.S. Fish and Wildlife Service Regions. See Figure 1 for a map.

[b] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear and be counted in more than one group. Inclusion in a segment and amount of participation are based on information on fishing within the United States and in anglers' five most often fished locations.

[c] Dashes indicate that no person in the sampe reported information on this item.

[d] Source: U.S. Fish and Wildlife Service and U.S. Bureau of the Census. 1980 National Survey of Fishing, Hunting and Wildlife-Associated Recreation. U.S. Government Printing Office, Washington, D.C., 1982.

Table 14. Days of participation in regions nation-wide[a], angler groups defined by species fished, 1980.

Angler segment[b]	Region 1			Region 2			Region 3			Region 4		
	Number of fishermen	Days		Number of fishermen	Days		Number of fishermen	Days		Number of fishermen	Days	
		Total	Mean		Total	Mean		Total	Mean		Total	Mean
Bass	1,632,842	24,800,021	15	2,525,771	42,320,409	16	5,593,038	102,251,156	18	5,656,958	109,498,322	19
Panfish	1,357,079	21,741,735	16	2,011,068	33,677,049	16	7,786,725	137,753,766	17	6,029,574	108,488,453	17
Catfish	1,513,069	23,390,059	15	2,227,832	35,217,299	15	3,716,429	69,595,898	18	4,154,691	72,512,106	17
Walleye	35,868	510,277	14	129,016	1,631,172	12	3,339,701	53,721,918	16	324,528	4,612,723	14
Pike	17,133	66,334	3	55,028	347,609	6	2,874,668	43,116,898	14	189,525	3,404,025	17
Trout	3,614,584	46,335,606	12	625,298	5,832,923	9	1,666,053	20,285,171	12	741,613	9,298,081	12
Salmon	1,470,256	17,472,211	11	26,250	103,115	3	923,193	9,485,370	10	15,061	136,636	9
Rockfish	1,115,014	12,330,928	11	282,711	4,827,418	17	232,868	5,361,439	23	915,512	13,895,338	15

Angler segment[b]	Region 5			Region 6			Region 7			Total	
	Number of fishermen	Days		Number of fishermen	Days		Number of fishermen	Days		Number of fishermen	Days
		Total	Mean		Total	Mean		Total	Mean		Total
Bass	3,434,042	54,608,217	15	836,038	12,910,647	15	234	365	1	19,679,000	346,389,000
Panfish	2,632,007	45,722,852	17	803,761	12,334,616	15	8,243	50,054	6	20,628,000	359,768,000
Catfish	1,740,194	30,680,159	17	804,759	11,967,528	14	222	11,137	50	14,157,000	243,374,000
Walleye	657,653	10,405,699	15	591,813	7,720,900	13	8,990	54,146	6	5,087,000	78,657,000
Pike	1,267,031	18,757,169	14	366,842	5,239,529	14	21,429	233,405	10	4,792,000	71,165,000
Trout	3,109,079	48,979,353	15	1,814,424	21,553,588	11	95,176	1,091,444	11	11,666,000	153,376,000
Salmon	434,496	5,100,327	11	94,213	729,842	7	183,367	2,408,283	13	3,147,000	35,436,000
Rockfish	1,460,535	19,312,563	13	97,106	1,879,988	19	10,279	123,362	12	4,114,000	57,731,000

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[a] U.S. Fish and Wildlife Service Regions. See Figure 1 for a map.

[b] Angler segments defined by species fished. Includes both freshwater and saltwater species. Groups are not mutually exclusive in that a fisherman could appear and be counted in more than one group. Inclusion in a segment and amount of participation are based on information on fishing within the United States and in anglers' five most often fished locations.

Table 15. Age of introduction[a] and years of fishing[b] for angler groups defined by type of fishing and fish species, 1980.

	Age of introduction						Years fishing			
Angler segment[c]	01-12	13-19	20-29	30-39	40-98	Ave. age	01-09	10-19	20-98	Ave. years
	-----------------number of fishermen-------------------						------number of fishermen------			
Great Lakes	2,466,999	290,581	146,816	54,359	44,516	9.6	483,584	871,587	1,650,617	23.2
Freshwater	28,346,023	3,638,795	1,806,681	686,607	620,881	10.1	6,402,166	10,409,109	18,169,656	22.4
Saltwater	9,632,158	1,267,151	606,916	257,778	251,657	10.3	2,190,206	3,460,973	6,345,142	22.4
Bass	20,792,121	2,119,180	963,737	339,432	320,652	9.2	3,450,703	7,511,480	13,527,856	23.2
Pan fish	21,225,195	2,373,898	1,217,598	365,130	421,073	9.6	3,538,092	7,239,431	14,801,337	24.2
Catfish	13,576,076	1,574,104	763,404	213,930	207,898	9.4	2,525,558	4,936,794	8,812,646	23.0
Walleye	5,477,850	527,318	225,763	104,020	97,693	9.2	645,141	1,812,518	3,973,852	25.1
Pike	5,059,722	492,902	218,692	88,534	45,420	8.9	662,729	1,892,776	3,345,705	23.7
Trout	12,858,180	1,267,046	624,173	190,939	147,323	9.0	2,320,820	4,792,105	7,947,156	22.7
Salmon	3,363,695	265,537	139,339	44,018	51,299	8.7	394,976	1,154,645	2,306,677	24.6
Rock fish	4,173,183	521,194	171,785	61,448	52,523	9.2	563,292	1,575,665	2,812,006	23.6

[a] Introduction to fishing in general, not fishing a particular species or type of waters.

[b] Years spent fishing in general, not fishing a particular species or type of waters.

[c] Angler segments defined by type of fishing and species fished. Groups are not mutually exclusive in that an angler could appear and be counted in more than one group.

Table 16. Locations most frequently fished by angler groups defined by type of fishing, 1980.

Angler segment[a]	Freshwater				Saltwater		
	Large Res.	Small Res.	Lakes	Rivers/Str.	Deep sea	Surf/Shore	Sounds
	Number of Fishermen						
Freshwater	14,524,000	8,286,000	14,579,000	15,757,000			
Saltwater					4,608,000	6,737,000	5,325,000

[a] Angler segments defined by type of fishing and species fished. Groups are not mutually exclusive in that an angler could appear and be counted in more than one group.

Table 17. Expenditures by angler groups defined by type of fishing, 1980.

Angler segment[a]	Expenses (in thousands of Dollars)		
	Travel	Equipment	Access related[c]
Great Lakes	341,386	NA	23,903
Freshwater	5,035,363	1,585,696	146,270
Saltwater	1,537,024	635,354	141,321

[a] Angler segments defined by type of fishing. Groups are not mutually exclusive in that an angler could appear and be counted in more than one group.

[b] Includes food, lodging, and transportation costs.

[c] Includes guide fees, pack trip or package fees, and private and public land use or access fees.

Table 18. Days of participation, specialty fishing anglers, 1980.

Angler segment[a]	In-state	Out-of-state	Total	Number of anglers[b]
Spear	2,252,000	293,000	2,544,000	441,000
Net	6,039,000	477,000	6,517,000	1,163,000
Ice	11,439,000	484,000	11,922,000	1,992,000
Bow	1,260,000	160,000	1,420,000	293,000
Gigging for frogs	3,885,000	270,000	4,155,000	974,000

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[a] Angler segments defined by type of specialty fishing. Groups are not mutually exclusive in that an angler could appear and be counted in more than one group.

[b] Source: U.S. Fish and Wildlife Service and U.S. Bureau of Census. 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. U.S. Government Printing Office, Washington, D.C., 1982.

Table 19. Age of introduction[a] and years of fishing[b] for angler groups defined by specialty fishing, 1980.

Angler segment[c]	Age of introduction[d]						Years of fishing			
	01-12	13-19	20-29	30-39	40-98	Ave. age	01-09	10-19	20-98	Ave. years
	------------------number of anglers--------------------						--------number of anglers------			
Spear	392,040	32,983	9,814	5,789	--	7.6	55,106	171,560	187,525	18.6
Net	1,037,839	82,376	24,460	10,962	3,327	8.1	164,184	420,803	558,595	20.6
Ice	1,721,424	137,749	75,576	37,059	11,915	8.6	174,427	631,176	1,179,898	24.5
Bow	268,576	11,088	6,941	5,789	--	7.6	19,059	138,101	134,697	19.3
Gigging for frogs	898,838	52,045	12,728	7,108	2,917	7.8	159,999	406,988	404,474	18.9

[a] Introduction to fishing in general, not fishing a particular species or type of waters.

[b] Years spent fishing in general, not fishing a particular species or type of waters.

[c] Angler segments defined by type of specialty fishing. Groups are not mutually exclusive in that an angler could appear and be counted in more than one group.

[d] Dashes indicate that no person in the sample reported information on this item.

Appendix B: Region 1 Data

Table 20 . Selected characteristics, Region 1[a] sportsmen and nonsportsmen, 1980.

Characteristic	Sportsmen[b] (percent)	Nonsportsmen[c] (percent)
Marital Status[d]		
Married	63.1	56.1
Widowed	1.8	7.9
Divorced	6.8	8.0
Separated	1.9	1.9
Never Married	26.4	26.1
Sex[e]		
Male	70.3	41.0
Female	29.7	59.0
Education[e]		
None	.2	.8
Kindergarten	.3	.5
Elementary	20.8	22.0
High school	40.5	40.4
College	38.1	36.2
Average age[e]	31.8 years	37.4 years
Population growing up[f]		
Large urban	18.2	26.4
Medium urban	22.4	23.3
Small city	21.0	18.4
Small town	18.1	16.2
Rural	20.3	15.8
Employed[f,g]		
Yes	71.5	56.3
No	28.5	43.7
Race[e]		
White	89.2	83.8
Black	4.0	6.7
American Indian, Aleut, Eskimo	1.1	.5
Asian, Pacific Islander	5.0	7.7
Other	.7	1.3
Site of residence[e]		
Urban	75.1	85.3
Rural	24.9	14.7
Average household size[e]	3.3 persons	3.3 persons

[a] U. S. Fish and Wildlife Service Regions, see Figure 1. States include: California, Hawaii, Idaho, Nevada, Oregon and Washington.

[b] U.S. population age 6 years old and older who hunted or fished in 1980.

[c] U.S. population age 6 years old and older who did no hunting or fishing in 1980.

[d] Persons 14 years old and older.

[e] Persons 6 years old and older.

[f] Persons 16 years old and older.

[g] Have a job or own a business. Excludes persons who are retired, going to school, or keeping house.

Table 21 . Number of trips and days of participation nation-wide, Region 1[a] hunter groups defined by type of game, 1980.

Hunter segment[b]	Trip[d]	Days		No. of hunters[d]
		Total[d]	Mean[d]	
Region 1				
Big game	6,315,663	9,195,767	8	1,071,789
Small game	9,499,003	10,045,863	9	1,011,312
Migratory birds	4,328,560	4,926,395	7	658,328
Other animals[c]	1,227,654	1,239,842	8	140,158
Region 2				
Big game	942	9,420	10	942
Small game	340,167	343,469	16	20,579
Migratory birds	194,396	198,165	10	18,681
Other animals[c]	36,288	26,416	11	2,235
Region 3				
Big game	33,548	89,258	4	18,410
Small game	230,853	275,208	14	18,899
Migratory birds	9,379	14,591	2	5,242
Other animals[c]	33,115	33,704	20	1,650
Region 4				
Big game	3,865	16,425	4	3,865
Small game	56,954	69,514	4	17,137
Migratory birds	--	1,025	1	1,025
Other animals[c]	--	--	-	--
Region 5				
Big game	34,653	86,529	5	17,026
Small game	271,703	274,038	12	21,521
Migratory birds	1,585	3,170	2	1,585
Other animals[c]	--	--	-	--
Region 6				
Big game	103,313	475,021	8	57,925
Small game	376,082	528,030	15	34,931
Migratory birds	181,619	344,377	12	27,254
Other animals[c]	7,613	15,553	2	5,518
Region 7				
Big game	2,317	5,212	3	1,621
Small game	77,217	71,727	113	634
Migratory birds	--	--	--	--
Other animals[c]	--	--	--	--
Total				
Big game	6,494,301			1,151,000
Small game	10,851,979			1,092,000
Migratory birds	4,715,539			712,000
Other animals[c]	1,304,670			155,000

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[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon and Washington. See Figure 1 for a map of regions.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear and be counted in more that one group. Inclusion in a segment and amount of participation are based on information on hunting within the United States in hunters' five most often hunted locations.

[c] Includes crow, woodchuck, raccoon, fox, coyote and others.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 22 . Age of introduction to hunting[a] for Region 1[b] hunter groups, 1980.

Hunter segment[c]	Age of introduction[d] 01-12	13-19	20-29	30-39	40-98	Average age
	------------------- Number of hunters			-------------------------		
Big game	607,841	365,371	128,122	20,004	10,519	13.6
Deer	533,056	349,593	119,577	17,980	9,858	13.9
Elk	199,782	83,126	18,017	6,905	5,881	13.2
Antelope	14,349	6,262	228	--	1,475	14.2
Moose	1,310	785	--	--	--	8.6
Bear	66,329	13,736	2,844	264	--	10.2
Turkey	27,595	746	--	--	--	9.7
Mountain goat	474	--	--	--	--	12.0
Mountain sheep	--	471	--	--	--	14.0
Alaska big game	--	--	174	--	--	23.0
Hawaii big game	11,560	5,776	2,082	--	661	14.7
Small game	644,994	327,909	97,258	7,287	1,514	12.8
Rabbit	272,034	141,230	39,379	867	--	12.6
Quail	327,090	126,511	21,845	5,446	--	11.9
Grouse	168,214	51,734	13,450	246	--	11.4
Chuckar	122,489	39,425	27,248	5,446	1,030	13.8
Squirrel	102,755	48,649	26,296	464	--	13.1
Pheasant	311,143	149,682	39,009	264	--	12.5
Alaska small game	460	--	174	--	--	12.8
Hawaii small game	7,480	3,692	934	--	484	14.7
Migratory birds	430,836	198,905	62,317	13,804	--	12.9
Geese	153,514	42,253	10,054	264	--	10.8
Duck	276,948	91,293	36,024	264	--	11.9
Coot, rail	15,686	9,783	--	--	--	10.9
Woodcock	3,921	--	--	--	--	11.3
Dove	207,096	127,154	43,964	13,540	--	13.8
Pigeon	63,473	13,518	--	--	--	10.4
Alaska migratory birds	--	--	--	--	--	--[c]
Hawaii migratory birds	704	1,162	189	--	--	14.6
Other animals	113,016	26,634	9,184	464	--	11.2
Crow	12,914	4,190	8,531	--	--	13.6
Woodchuck	17,935	3,189	--	--	--	10.1
Raccoon	11,445	786	--	--	--	9.9
Fox	4,191	1,148	--	--	--	11.7
Coyote	75,534	19,751	9,184	--	--	11.7
Alaska fur bearers	--	--	--	--	--	0.0
Other	83,637	25,604	4,291	464	--	11.3
Bow hunters	74,572	23,711	21,197	1,037	--	12.8
Muzzle loader hunters	31,292	7,042	2,195	--	--	9.9
Pistol hunters	93,605	47,466	5,278	--	--	11.8

[a] Introduction to hunting in general, not a particular species, game type or using special weapons.

[b] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon and Washington. See Figure 1 for a map of regions.

[c] Hunter segments defined by type of game, species hunted, and special weapon hunters. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 23 . Years of hunting experience[a], Region 1[b] hunting groups, 1980.

Hunter segment[c]	Years hunting[d] 1-9	10-19	20-98	Average[d] years
	-------number of hunters-------			
Big Game	322,389	296,195	508,912	19.2
Deer	297,460	281,087	447,708	19.0
Elk	58,670	80,094	174,360	23.1
Antelope	3,231	2,006	17,077	24.8
Moose	--	1,310	785	26.3
Bear	13,073	30,427	39,673	19.9
Turkey	4,861	4,500	18,980	18.5
Mountain goat	474	--	--	9.0
Mountain sheep	--	471	--	12.0
Alaska big game	174	--	--	2.0
Hawaii big game	10,100	5,331	4,196	12.6
Small game	387,976	263,029	421,603	16.8
Rabbit	183,829	123,876	139,664	14.7
Quail	163,506	110,204	201,041	16.3
Grouse	48,608	77,032	107,791	19.5
Chuckar	55,367	37,950	102,108	20.8
Squirrel	69,192	50,678	58,294	14.0
Pheasant	171,153	128,740	200,205	17.6
Alaska small game	174	460	--	11.0
Hawaii small game	8,496	1,765	2,329	11.4
Migratory birds	239,763	165,940	296,466	18.2
Geese	44,971	50,904	110,210	22.2
Duck	115,006	105,826	180,004	19.5
Coot, rail	5,082	6,541	13,846	19.3
Woodcock	1,180	2,741	--	10.5
Dove	133,999	96,155	157,907	18.0
Pigeon	18,748	17,252	40,991	18.6
Alaska migratory birds	--	--	--	--
Hawaii migratory birds	1,377	189	489	12.4
Other animals	36,659	53,359	59,280	17.9
Crow	9,353	12,024	4,258	13.5
Woodchuck	2,265	10,093	8,766	18.4
Raccoon	5,647	1,975	4,609	17.0
Fox	1,422	1,687	2,230	17.1
Coyote	31,638	36,129	36,702	16.0
Alaska fur bearers	--	--	--	--
Other	35,681	26,554	51,761	16.7
Bow hunters	41,811	31,741	46,965	14.2
Muzzle loader hunters	8,263	9,617	22,649	21.0
Pistol hunters	54,694	43,081	48,574	15.2

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[a] Years spent hunting in general, not hunting a particular species, game type, or using special weapons.

[b] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon and Washington. See Figure 1 for a map of regions.

[c] Hunter segments defined by type of game, species hunted, and special weapon hunters. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 24 . Most important reason for hunting[a] given by Region 1[b] hunter groups, 1980.

Hunter segments[c]	Most important reason[d]						
	Obtain meat	Problem animals	Friends family	Sport/ recr.	Close to nature	Obtain trophy	Other
	Number of hunters						
Big game hunters	465,069	3,819	100,739	429,950	115,882	8,789	3,258
Deer	424,133	3,819	94,239	386,901	104,210	8,789	3,258
Elk	141,243	--	27,334	110,777	26,130	6,026	1,324
Antelope	8,816	--	2,911	4,994	2,537	2,328	728
Moose	1,310	--	--	--	--	785	--
Bear	36,750	--	2,383	32,817	9,194	2,029	--
Turkey	2,428	--	1,489	8,745	15,679	--	--
Mtn Goat	474	--	--	--	--	--	--
Mtn Sheep	471	--	--	--	--	--	--
Alaska big game	--	--	--	--	174	--	--
Hawaii big game	10,480	--	1,678	6,495	1,426	--	--
Small game hunters	284,926	15,326	117,224	530,285	117,510	7,602	2,617
Rabbit	105,443	5,272	40,040	239,307	62,763	--	275
Quail	125,636	4,882	32,136	244,660	66,558	1,749	--
Grouse	81,857	2,056	27,195	99,895	16,243	5,074	1,324
Chuckar	55,351	--	12,730	88,145	36,627	2,814	585
Squirrel	39,638	7,708	13,943	75,947	40,956	793	--
Pheasant	122,071	--	48,027	266,166	54,199	2,742	2,032
Alaska small game	274	--	--	186	174	--	--
Hawaii small game	7,643	290	484	3,987	186	--	--
Migratory birds hunters	178,879	1,488	76,528	366,911	74,055	2,274	860
Geese	43,136	--	26,434	110,929	23,512	1,578	860
Duck	98,646	--	58,633	199,421	40,783	2,274	275
Coot, rail	2,937	--	4,059	13,596	4,877	--	--
Woodcock	637	--	--	2,657	627	--	--
Dove	80,213	1,448	34,581	239,591	27,990	1,800	860
Pigeon	28,180	--	2,419	30,493	15,899	--	--
Alaska migratory birds	--	--	--	--	--	--	--
Hawaii migratory birds	409	--	--	1,646	--	--	--
Other animal hunters	39,785	9,764	13,029	66,659	18,559	1,595	728
Crow	5,313	1,798	4,229	7,808	7,308	--	--
Woodchuck	3,025	1,798	3,235	11,982	1,905	--	--
raccoon	2,838	--	1,454	3,078	4,861	--	--
Fox	2,406	608	1,034	943	348	--	--
Coyote	32,133	2,056	9,492	45,275	13,190	1,595	728
Alaska fur bearers	--	--	--	--	--	--	--
Other	30,799	5,910	5,891	52,577	18,773	--	--
Bow hunters	39,848	4,882	3,974	37,873	32,536	676	728
Muzzle loader hunters	19,737	--	3,616	13,242	3,934	--	--
Pistol hunters	33,643	6,938	12,787	71,727	19,659	1,595	--

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[a] Reasons for hunting in general, not hunting a particular species, game type or using special weapons.

[b] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon and Washington. See Figure 1 for a map of the regions.

[c] Hunter segments defined by type of game, species hunted, and special weapon hunters. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 25 . Second most important reason for hunting[a] given by Region 1[b] hunter groups, 1980.

Hunter segments[c]	Second most important reason						
	Obtain meat	Problem animals	Friends family	Sport/ recr.	Close to nature	Obtain trophy	Other
	Number of hunters						
Big game hunters	220,550	15,570	233,126	340,228	216,[illegible]	45,396	10,983
Deer	204,431	14,771	204,038	325,280	191,71[illegible]	34,924	9,263
Elk	65,524	10,195	50,049	89,341	67,693	19,272	3,004
Antelope	7,189	402	1,644	4,966	6,679	1,434	--
Moose	--	--	--	785	--	1,310	--
Bear	12,137	112	13,130	33,711	14,220	5,209	--
Turkey	--	--	12,045	6,450	5,297	--	--
Mountain goat	--	--	--	474	--	--	--
Mountain sheep	--	--	--	--	471	--	--
Alaska big game	--	--	174	--	--	--	--
Hawaii big game	4,252	799	2,323	4,245	2,786	5,485	189
Small game hunters	167,366	10,361	275,771	287,398	214,031	33,371	23,467
Rabbit	58,399	4,801	122,874	109,110	97,615	11,946	6,535
Quail	83,731	5,682	123,522	112,902	106,606	8,548	5,109
Grouse	53,761	736	45,523	60,657	48,649	15,004	714
Chuckar	40,706	806	49,246	55,574	41,989	5,008	248
Squirrel	14,398	4,968	51,850	41,651	54,036	6,044	4,798
Pheasant	90,485	5,141	125,508	138,010	96,708	13,169	7,521
Alaska small game	--	--	174	274	186	--	--
Hawaii small game	2,614	--	769	2,568	1,382	5,257	--
Migratory birds hunters	131,104	10,442	198,046	167,375	124,297	18,234	4,809
Geese	52,920	334	49,665	49,314	45,931	489	248
Duck	84,267	7,730	88,798	101,545	82,145	12,485	4,809
Coot, rail	9,924	--	11,468	2,727	1,350	--	--
Woodcock	1,477	--	1,611	637	196	--	--
Dove	80,684	2,934	115,063	71,544	73,385	6,617	--
Pigeon	13,788	--	25,460	20,624	7,519	--	--
Alaska birds	--	--	--	--	--	--	--
Hawaii birds	880	--	--	194	585	396	--
Other animal hunters	21,427	7,708	31,211	44,721	37,057	5,571	1,184
Crow	5,152	822	2,566	11,485	6,431	--	--
Woodchuck	3,773	1,597	3,107	3,748	7,794	1,926	--
Raccoon	611	112	786	8,101	2,129	492	--
Fox	--	--	1,653	2,421	--	489	--
Coyote	16,341	5,602	16,561	34,129	24,305	5,571	1,184
Alaska fur bearers	--	--	--	--	--	--	--
Other	9,869	267	36,401	30,277	27,537	9,135	
Bow hunters	19,645	402	42,077	28,293	20,174	9,150	--
Muzzle loader hunters	4,285	3,100	11,468	12,034	6,433	3,209	--
Pistol hunters	25,280	3,236	37,857	34,688	36,348	1,724	5,701

[a] Reasons for hunting in general, not hunting a particular species, game type or using special weapons.

[b] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon and Washington. See Figure 1 for a map of regions.

[c] Hunter segments defined by type of game, species hunted, and special weapon hunters. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 26. Days of hunting on public land by Region 1[a] hunter groups defined by type of game, 1980.

Land ownership	Hunter segment[b]			
	Big game	Small game	Migratory birds	Other animals[c]
Federally owned	3,916,747	2,177,920	471,564	267,061
State owned	1,086,818	778,431	505,454	108,687
Locally owned	782,944	1,349,582	726,428	276,094
Unknown ownership	650,468	679,096	236,043	110,177
Total days on public land	6,436,977	4,985,029	1,939,489	762,019

[a] U.S. Fish and Wildlife Service Regions. States include California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a map of regions.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in and be count d in more than one group.

[c] Includes crow, woodchuck, raccoon, fox, coyote, and others.

Table 27 . Expenditures made by Region 1[a] hunter groups defined by type of game, 1980.

	Expenses (thousands of dollars)		
Hunter segment[b]	Travel[c]	Equipment	Access related[d]
Big game	191,902	104,743	2,842
Small game	119,736	89,714	1,931
Migratory birds	64,624	29,588	3,430
Other animals[e]	8,922	1,469	120

[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon and Washington. See Figure 1 for a map of regions.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear and be counted in more than one group.

[c] Includes food, lodging, and transportation costs.

[d] Includes guide fees, pack trip or package fees, and private and public land use or access fees.

[e] Includes crow, woodchuck, raccoon, fox, coyote, and others.

Table 28 . Hunters and days of participation in regions nation-wide, region 1[a] hunter groups defined by species hunted, 1980.

	Region 1			Region 2			Region 3		
	Number of	Days		Number of	Days		Number of	Days	
Hunter segment[b]	hunters[c]	Total[c]	Mean[c]	hunters[c]	Total[c]	Mean[c]	hunters[c]	Total[c]	Mean[c]
Deer	992,579	7,189,597	7	942	9,420	10	5,735	89,758	15
Elk	295,323	1,806,388	6	--	--	--	--	--	--
Antelope	16,568	86,726	5	--	--	--	--	--	--
Moose	2,095	10,480	5	--	--	--	--	--	--
Bear	81,726	764,096	9	--	--	--	--	--	--
Turkey	22,560	96,746	4	--	--	--	196	1,962	10
Mountain goat	474	474	1	--	--	--	--	--	--
Mountain sheep	471	2,826	6	--	--	--	--	--	--
Alaska big game	--	--	--	--	--	--	--	--	--
Hawaii big game	20,079	207,996	10	--	--	-	--	--	--
Rabbit	410,914	3,621,676	8	19,034	189,972	9	12,640	185,299	14
Quail	466,111	3,908,647	8	10,707	87,073	8	5,537	23,534	4
Grouse	214,577	1,701,048	7	706	14,221	20	7,698	60,638	7
Chuckar	194,580	1,295,524	6				984	7,876	8
Squirrel	146,982	1,064,749	7	14,085	176,933	12	4,993	137,411	27
Pheasant	472,272	3,542,267	7	267	8,036	30	14,342	113,471	7
Alaska small game	--	--	--	--	--	--	--	--	--
Hawaii small game	12,590	230,637	18	--	--	--	--	--	--
Geese	196,561	1,815,253	9	348	348	1	1,518	2,064	1
Duck	375,098	3,106,766	8	5,198	73,106	14	2,740	4,651	1
Coot, rail	23,631	234,345	9	--	--	--	--	--	--
Woodcock	2,300	61,311	26	--	--	--	1,621	10,424	6
Dove	368,597	2,211,009	5	18,681	108,652	5	973	973	1
Pigeon	76,991	647,797	8	--	--	--	--	--	--
Alaska migratory waterfowl	--	--	--	--	--	--	--	--	--
Hawaii migratory waterfowl	2,055	18,869	9	--	--	--	--	--	--
Crow	26,260	344,123	13	--	--	--	196	3,139	16
Woodchuck	21,204	147,047	6	--	--	--	545	3,273	6
Raccoon	10,581	164,355	15	--	--	--	1,650	33,704	20
Fox	4,141	23,193	5	653	3,962	6	545	3,273	6
Coyote	99,253	821,490	8	1,980	11,080	5	545	3,273	6
Alaska fur bearers	--	--	--	--	--	--	--	--	--
Other	115,024	644,608	5	942	9,420	10	2,912	8,008	2

Table 28 . Continued.

Hunter segment[b]	Region 4			Region 5			Region 6		
	Number of hunters[c]	Days		Number of hunters[c]	Days		Number of hunters[c]	Days	
		Total[c]	Mean[c]		Total[c]	Mean[c]		Total[c]	Mean[c]
Deer	2,221	8,203	3	17,026	86,529	5	41,811	290,562	6
Elk	--	--	--	--	--	--	19,924	133,273	6
Antelope	--	--	--	--	--	--	5,746	28,482	4
Moose	--	--	--	--	--	--	--	--	--
Bear	--	--	--	--	--	--	--	--	--
Turkey	1,644	8,222	5	1,585	14,265	9	2,356	6,687	2
Mountain goat	--	--	--	--	--	--	--	--	--
Mountain sheep	--	--	--	--	--	--	--	--	--
Alaska big game	--	--	--	--	--	--	--	--	--
Hawaii big game	--	--	--	--	--	--	--	--	--
Rabbit	15,941	62,336	3	21,521	259,198	12	11,705	218,793	18
Quail	--	--	--	2,420	20,101	8	11,802	225,471	19
Grouse	--	--	--	461	13,847	30	13,529	47,464	3
Chuckar	--	--	--	--	--	--	688	4,130	6
Squirrel	2,669	9,247	3	6,992	29,418	4	4,289	14,575	3
Pheasant	--	--	--	--	--	--	19,204	213,444	11
Alaska small game	--	--	--	--	--	--	--	--	--
Hawaii small game	--	--	--	--	--	--	--	--	--
Geese	--	--	--	--	--	--	10,251	94,691	9
Duck	--	--	--	1,585	3,170	2	20,909	208,056	9
Coot, rail	--	--	--	--	--	--	1,838	64,362	35
Woodcock	--	--	--	--	--	--	--	--	--
Dove	--	--	--	1,585	3,170	2	11,802	145,662	12
Pigeon	1,025	1,025	1	--	--	--	4,204	105,100	25
Alaska migratory waterfowl	--	--	--	--	--	--	--	--	--
Hawaii migratory waterfowl	--	--	--	--	--	--	--	--	--
Crow	--	--	--	--	--	--	--	--	--
Woodchuck	--	--	--	--	--	--	1,722	12,888	7
Raccoon	--	--	--	--	--	--	--	--	--
Fox	--	--	--	--	--	--	305	1,525	5
Coyote	--	--	--	--	--	--	3,796	5,891	1
Alaska fur bearers	--	--	--	--	--	--	--	--	--
Other	--	--	--	--	--	--	1,890	11,852	6

Table 28 Continued.

Hunter segment[b]	Region 7			Total		
	Number of hunters [c]	Days		Number of hunters[c]	Days	
		Total [c]	Mean [c]		Total[c]	Mean[c]
Deer	1,447	2,895	2	1,061,761	7,676,464	7
Elk	--	--	--	315,247	1,939,661	6
Antelope	--	--	--	22,314	115,208	5
Moose	--	--	--	2,095	10,480	5
Bear	1,447	1,447	1	83,173	765,543	9
Turkey	--	--	--	28,341	127,882	5
Mountain goat	--	--	--	474	474	1
Mountain sheep	--	--	--	471	2,826	6
Alaska big game	174	870	5	174	870	5
Hawaii big game	--	--	--	20,079	207,996	10
Rabbit	--	--	--	491,755	4,537,274	9
Quail	--	--	--	496,577	4,264,826	9
Grouse	--	--	--	236,971	1,837,218	8
Chuckar	--	--	--	196,252	1,307,530	7
Squirrel	--	--	--	180,010	1,432,333	8
Pheasant	--	--	--	506,085	3,877,218	8
Alaska small game	634	71,726	113	634	71,726	**
Hawaii small game	--	--	--	12,590	230,637	18
Geese	--	--	--	208,678	1,912,356	9
Duck	--	--	--	405,530	3,395,749	8
Coot, rail	--	--	--	25,469	298,707	12
Woodcock	--	--	--	3,921	71,735	18
Dove	--	--	--	401,638	2,469,466	6
Pigeon	--	--	--	82,220	753,922	9
Alaska migratory waterfowl	--	--	--	--	--	--
Hawaii migratory waterfowl	--	--	--	2,055	18,869	9
Crow	--	--	--	26,456	347,262	13
Woodchuck	--	--	--	23,471	163,208	7
Raccoon	--	--	--	12,231	198,059	16
Fox	--	--	--	5,644	31,953	6
Coyote	--	--	--	105,574	841,734	8
Alaska fur bearers	--	--	--	--	--	--
Other	--	--	--	120,768	673,888	6

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[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon and Washington. See Figure 1 for a map of regions.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in and be counted in more than one group. Inclusion in a segment and amount of participation are based on information on hunting within the United States in hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 29. Days of participation, Region 1[a] special weapon hunters, 1980.

Hunter segment[b]	Game hunted				Number of hunters
	Big game	Small game	Migratory birds	Other game[c]	
	--------------------days of participation----------------------				
Bow/arrow	650,734	196,577	70,718	19,892	120,517
Muzzle Loader	176,884	12,106	6,893	13,023	40,529
Pistol	45,491	435,627	2,086	157,499	146,349

[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a map of regions.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear and be counted in more than one group.

[c] Includes crow, woodchuck, raccoon, fox, coyote, and others.

Table 30 . Number of trips and days of participation in regions nation-wide, Region 1[a] angler groups defined by type of fishing, 1980.

Angler segment[b]	Trips[c]	Days[c]		No. of fishermen[c]
		Total	Mean	
Region 1				
Great Lakes	--	--	--	--
Freshwater	61,599,809	75,597,529	1	4,564,698
Saltwater	24,782,659	26,275,444	1	2,777,270
Region 2				
Great Lakes	--	--	--	--
Freshwater	1,079,860	1,815,576	1	162,368
Saltwater	415	2,077	5	415
Region 3				
Great Lakes	84,811	100,914	1	15,461
Freshwater	456,017	511,503	1	60,145
Saltwater	--	--	--	--
Region 4				
Great Lakes	--	--	--	--
Freshwater	489,930	697,330	1	80,929
Saltwater	31,690	69,712	2	16,596
Region 5				
Great Lakes	16,252	16,802	1	1,162
Freshwater	275,642	352,737	1	34,347
Saltwater	76,845	99,875	1	39,978
Region 6				
Great Lakes	--	--	--	--
Freshwater	1,285,100	2,645,604	2	221,903
Saltwater	--	--	--	--
Region 7				
Great Lakes	--	--	--	--
Freshwater	221,806	147,644	--	27,670
Saltwater	186,722	272,949	1	19,177
Total trips				
Great Lakes	101,000			17,000
Freshwater	65,408,000			5,152,000
Saltwater	29,078,000			2,853,000

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[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a map of regions.

[b] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in and be counted in more than one group. Inclusion in a segment and amount of participation are based on information on fishing within the United States and in anglers' five most often fished locations.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 31. Days of participation in regions nation-wide, Region 1[a] angler groups defined by species fished, 1980.

Angler segment[b]	Region 1			Region 2			Region 3			Region 4		
	Number of fishermen[c]	Days[c] Total	Mean	Number of fishermen[c]	Days[c] Total	Mean	Number of fishermen[c]	Days[c] Total	Mean	Number of fishermen[c]	Days[c] Total	Mean
Bass	1,581,013	24,129,527	15	102,008	1,246,870	12	22,573	272,919	12	33,836	466,356	13
Panfish	1,311,442	21,218,390	16	63,541	824,702	12	38,251	280,570	7	37,848	570,392	15
Catfish	1,480,223	22,908,750	15	119,095	1,117,811	9	11,151	197,853	17	48,411	528,946	10
Walleye	33,441	494,676	14	--	--	--	38,803	211,949	5	1,915	13,508	7
Pike	14,604	53,288	3	1,492	33,915	22	31,308	221,831	7	--	--	--
Trout	3,435,739	44,869,379	13	60,076	567,427	9	9,680	123,630	12	22,814	85,005	3
Salmon	1,385,418	17,042,354	12	195	978	5	7,807	26,940	3	--	--	--
Rockfish	1,069,282	12,047,343	11	10,858	53,594	4	2,367	47,358	20	2,840	5,984	2

Region/ Angler segment[b]	Region 5			Region 6			Region 7			Total		
	Number of fishermen[c]	Days[c] Total	Mean	Number of fishermen[c]	Days[c] Total	Mean	Number of fishermen[c]	Days[c] Total	Mean	Number of fishermen[c]	Days[c] Total	Mean
Bass	19,102	187,902	9	30,841	102,391	3	--	--	--	1,789,373	26,405,965	15
Panfish	16,470	71,489	4	19,324	202,402	10	--	--	--	1,486,876	23,167,945	16
Catfish	4,255	59,571	14	17,454	306,975	17	222	11,137	50	1,680,811	25,131,043	15
Walleye	--	--	--	7,708	40,037	5	--	--	--	81,867	760,170	9
Pike	14,566	123,693	8	5,449	23,323	4	274	24,703	90	67,773	480,753	7
Trout	17,621	209,337	11	198,049	1,963,543	9	8,993	50,043	5	3,752,972	47,868,364	13
Salmon	2,945	11,261	3	5,993	19,748	3	35,243	294,608	8	1,437,601	17,395,889	12
Rockfish	3,341	8,450	2	5,738	16,248	2	4,052	50,388	12	1,098,478	12,229,365	11

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[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a map of regions.

[b] Angler segments defined by species fished. Includes both freshwater and saltwater species. Groups are not mutually exclusive in that a fisherman could appear in and be counted in more than one group. Inclusion in a segment and amount of participation are based on information on fishing within the United States and in anglers' five most often fished locations.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 32. Age of introduction[a] and years of fishing[b] for Region 1[c] angler groups defined by type of fishing and fish species, 1980.

	Age of introduction[d]						Years fishing			
Angler segment[e]	01-12	13-19	20-29	30-39	40-98	Ave. age	01-09	10-19	20-98	Ave. years
	number of fishermen						number of fishermen			
Great Lakes	12,976	3,285	181	--	--	8.5	2,693	6,683	7,066	19.6
Freshwater	4,074,096	346,057	292,981	98,016	57,977	9.5	948,599	1,568,174	2,315,875	21.2
Saltwater	2,367,782	236,727	144,748	31,850	30,643	9.4	543,691	754,450	1,485,266	21.7
Bass	1,785,528	117,272	134,650	29,605	11,107	8.8	347,354	742,662	971,082	20.5
Pan fish	1,439,190	120,272	104,237	4,264	14,423	8.7	239,761	458,055	966,936	23.4
Catfish	1,538,896	148,533	144,171	5,237	7,378	9.1	331,676	592,461	899,543	21.5
Walleye	83,644	3,398	--	--	958	6.7	3,531	26,948	58,715	27.6
Pike	58,069	305	448	10,958	--	10.3	3,689	42,508	23,583	21.1
Trout	4,102,366	353,611	210,223	60,450	42,498	8.7	765,910	1,556,152	2,432,154	22.2
Salmon	1,617,718	125,828	66,674	17,229	18,624	8.4	196,089	546,363	1,102,785	24.7
Rock fish	1,077,300	120,014	38,887	7,587	6,222	8.7	178,378	356,194	690,154	22.7

[a] Introduction to fishing in general, not fishing a particular species or type of waters.

[b] Years spent fishing in general, not fishing a particular species or type of waters.

[c] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a map of regions.

[d] Dashes indicate that no person in the sample reported information on this item.

[e] Angler segments defined by type of fishing and species fished. Groups are not mutually exclusive in that an angler could appear and be counted in more than one group.

Table 33. Locations most frequently fished by Region 1[a] angler groups defined by type of fishing, 1980.

Angler segment[b]	Freshwater				Saltwater		
	Large Res.	Small Res.	Lakes	Rivers/Str.	Deep sea	Surf/Shore	Sounds
	Number of fishermen						
Freshwater	2,022,945	607,573	1,946,610	2,379,504			
Saltwater					1,191,289	1,544,573	877,994

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[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a mpa of regions.

[b] Angler segments defined by type of fishing and species fished. Groups are not mutually exclusive in that an angler could appear in and be counted in more than one group.

Table 34 . Expenditures, Region 1[a] angler groups defined by type of fishing, 1980.

	Expenses (in thousands of dollars)		
Angler segment[b]	Travel[c]	Equipment	Access Related[d]
Great Lakes	9,696	NA	272
Freshwater	881,800	254,267	33,711
Saltwater	297,302	141,020	36,760

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[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a map of regions.

[b] Angler segments defined by type of fishing. Groups are not mutually exclusive in that an angler could appear in and be counted in more than one group.

[c] Includes food, lodging, and transportation costs.

[d] Includes guide fees, pack trip or package fees, and public and private land use or access fees.

Table 35. Days of participation, Region 1[a] specialty fishing anglers, 1980.

Angler segment[b]	In-state	Out-of-state	Total	Number of anglers
Spear	245,834	48,191	294,025	72,000
Net	382,236	9,590	391,826	87,000
Ice	126,806	45,062	171,868	68,000
Bow	24,387	1,071	25,458	23,000
Gigging for frogs	93,631	40,727	134,358	98,000

[a] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a map of regions.

[b] Angler segments defined by type of specialty fishing. Groups are not mutually exclusive in that an angler could appear and be counted in more than one group.

Table 36. Age of introduction[a] and years of fishing[b] for Region 1[c] angler groups defined by specialty fishing, 1980.

	Age of introduction[e]						Years of fishing			
Angler segment[d]	01-12	13-19	20-29	30-39	40-98	Ave. age	01-09	10-19	20-98	Ave. years
	------------------number of anglers--------------------						--------number of anglers------			
Spear	71,841	799	--	--	--	6.3	1,031	24,914	20,797	13.7
Net	71,843	11,466	--	1,518	2,323	8.7	9,324	13,307	48,200	19.8
Ice	50,593	2,545	3,897	10,958	--	10.9	6,559	28,755	32,679	22.8
Bow	21,595	1,104	--	--	--	6.5	1,840	16,627	4,232	13.8
Gigging for frogs	94,486	3,113	181	--	--	7.9	16,615	40,234	40,931	21.3

[a] Introduction to fishing in general, not fishing a particular species or type of waters.

[b] Years spent fishing in general, not fishing a particular species or type of waters.

[c] U.S. Fish and Wildlife Service Regions. States include: California, Hawaii, Idaho, Nevada, Oregon, Washington. See Figure 1 for a map of regions.

[d] Angler segments defined by type of specialty fishing. Groups are not mutually exclusive in that an angler could appear and be counted in more than one group.

[e] Dashes indicate that no person in the sample reported information on this item.

Appendix C: California Data

Table 169. Selected characteristics, California sportsmen and nonsportsmen, 1980.

Characteristic	Sportsmen[a] (percent)	Nonsportsmen[b] (percent)
Marital Status[c]		
Married	61.2	55.6
Widowed	1.9	7.9
Divorced	7.2	8.1
Separated	2.3	2.1
Never Married	27.4	26.4
Sex[d]		
Male	70.2	42.2
Female	29.8	57.8
Education[d]		
None	.3	.9
Kindergarten	.5	.5
Elementary	20.9	22.9
High school	37.1	38.4
College	41.2	37.3
Average age[d]	31.5 years	37.3 years
Population growing up[e]		
Large urban	21.8	30.1
Medium urban	24.0	23.4
Small city	21.4	18.0
Small town	17.0	15.4
Rural	15.8	13.1
Employed[e,f]		
Yes	73.3	57.1
No	26.7	42.9
Race[d]		
White	87.4	83.1
Black	5.6	8.0
American Indian, Aleut, Eskimo	.9	.4
Asian, Pacific Islander	5.1	7.0
Other	.9	1.5
Site of residence[d]		
Urban	85.3	90.6
Rural	14.7	9.4
Average household size[d]	3.4 persons	3.3 persons

[a] U.S. population age 6 years old and older who hunted or fished in 1980.

[b] U.S. population age 6 years old and older who did no hunting or fishing in 1980.

[c] Persons 14 years old and older.

[d] Persons 6 years old and older.

[e] Persons 16 years old and older.

[f] Defined as having a job or owning a business. Does not include persons who are retired, going to school, or keeping house.

Table 170. Participants, California hunter groups, 1980.

Groups	Number of hunters	Percent of state population[a]	Percent of state sportsmen[a]
Hunters by -			
Type of game[b]			
Big game	291,100	1.6	7.2
Small game	531,200	2.9	13.2
Migratory birds	391,700	2.2	9.7
Other animals[c]	47,000	.3	1.2
Special weapon used:			
Bow and arrow[c]	66,900	.4	1.7
Muzzle loader[d]	12,200	.07	.3
Species pursued[e]:			
Deer hunters	266,100	1.5	6.6
Pheasant hunters	199,700	1.1	5.0
Goose hunters	68,100	.4	1.7
Duck Hunters	162,900	.9	4.0

[a] Population 16 years old and older. Source: 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, U.S. Dept. of the Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of the Census. U.S. Gov't. Printing Office, 1982.

[b] Includes California residents who hunted in state of residence.

[c] Sample size less than 15.

[d] Sample size less than 5.

[e] Includes California residents who hunted for species in state of residence in at least one of hunters' five most often hunted places.

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Table 171. Age of introduction to hunting[a], California hunters grouped by type of game hunted, 1980.

	Hunter segments[b]							
	Big game		Small game		Migratory birds		Other game[c]	
Beginning age	Number[d]	Percent[d]	Number[d]	Percent[d]	Number[d]	Percent[d]	Number[d]	Percent[d]
1-5 years	20,521	7.0	25,734	4.9	19,165	5.0	--	--
6-8 years	11,603	4.0	39,927	7.6	24,414	6.3	2,365	5.0
9-11 years	69,748	24.0	126,683	24.3	82,067	21.2	12,749	27.1
12-15 years	116,073	39.9	178,290	34.1	139,024	35.9	18,478	39.3
16-17 years	18,470	6.3	44,873	8.6	30,158	7.8	--	--
18-24 years	40,491	13.9	75,858	14.5	59,656	15.4	8,532	18.2
25-34 years	8,794	3.0	25,354	4.9	26,968	7.0	--	--
35-44 years	5,447	1.9	5,447	1.0	5,447	1.4	--	--
45-54 years	--	--	--	--	--	--	--	--
55-64 years	--	--	--	--	--	--	--	--
65+ years	--	--	--	--	--	--	--	--

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[a] Introduction to hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes California residents who hunted in-state.

[c] Other animals include crow, woodchuck, raccoon, fox, and coyote.. Sample size for California other animal hunters was less than 15.

[d] Dashes indicate that no person in the sample repported information on this item.

Table 172. Years of hunting[a], California hunters grouped by type of game hunted, 1980.

Years of participation	Hunter segments[b]							
	Big game		Small game		Migratory birds		Other game[c]	
	Number[d]	Percent[d]	Number[d]	Percent[d]	Number[d]	Percent[d]	Number[d]	Percent[d]
0-2 years	35,603	12.2	49,306	9.5	36,599	9.5	8,532	20.3
3-5 years	31,273	10.7	100,195	19.3	47,720	12.3	--	--
6-8 years	33,274	11.4	89,750	17.3	59,081	15.3	4,862	11.5
9-11 years	22,136	7.6	37,347	7.2	39,011	10.1	5,998	14.2
12-15 years	19,470	6.7	37,435	7.2	35,197	9.1	8,671	20.6
16-17 years	11,363	3.9	16,059	3.1	6,956	1.8	--	--
18-24 years	63,924	22.0	88,004	16.9	61,129	15.8	9,011	21.4
25-34 years	31,807	10.9	56,039	10.8	43,821	11.3	5,050	12.0
35-44 years	25,058	8.6	32,965	6.3	31,081	8.0	--	--
45-54 years	11,923	4.1	5,317	1.0	16,302	4.2	--	--
55-64 years	--	--	7,301	1.4	10,003	2.6	--	--
65+ years	5,317	1.8	--	--	--	--	--	--

[a] Years of participation in hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes California residents who hunted in-state.

[c] Other animals include crow, woodchuck, raccoon, fox and coyote. Sample size for California other animal hunters was less than 15.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 173 Membership in organizations, California hunters grouped by type of game hunted, 1980.

Organization groups[b]	Hunters[a]							
	Big game		Small game		Migratory birds		Other game[c]	
	Number	Percent	Number	Percent	Number[d]	Percent[d]	Number[d]	Percent[d]
A	2,607	.9	2,607	.5	--	--	--	--
B	4,805	1.7	4,805	.9	5,192	1.3	--	--
C	66,832	23.0	118,653	22.3	86,881	22.2	8,264	17.6
D	16,449	5.6	47,514	8.9	33,702	8.6	15,379	32.7
E	63,961	22.0	99,378	18.7	67,339	17.2	8,095	17.2
F	5,686	2.0	5,686	1.1	2,490	.6	--	--
No organization	210,736	72.4	384,275	72.3	293,375	74.9	28,413	60.4

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Only residents are included in these segments.

[b] Groups include: A-Defenders of Wildlife, Fund for Animals, Friends of Animals; B-Trout Unlimited, B.A.S.S.; C-Ducks Unlimited; National Rifle Association, Safari Club International; D-American Museum of Natural History, Nat'l. Geographic Society, Nature Conservancy, Sierra Club, Wilderness Society; E-American Birding Association, Izaak Walton League, Nat'l. Audubon Society, The Wildlife Society, World Wildlife Fund; and F-other organizations.

[c] Other animals include crow, woodchuck, raccoon, fox, and coyote. Sample size for California other animal hunters was less than 15.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 174 Most important and second most important reasons for hunting[a], California hunters grouped by type of game hunted, 1980.

Reasons	Hunters[b]							
	Big game		Small game		Migratory birds		Other game[c]	
	Number[d]	Percent[d]	Number[d]	Percent[d]	Number[d]	Percent[d]	Number[d]	Percent[d]
Most important:								
Obtain meat	100,459	35.1	128,310	24.8	97,580	25.5	5,589	13.3
Problem animals	--	--	10,329	2.0	--	--	5,447	12.9
Be with family, friends	10,210	3.6	47,460	9.2	43,323	11.1	4,229	10.0
Sport, recreation	130,271	45.5	278,589	53.9	196,695	50.2	18,783	44.6
Be close to nature	45,344	15.8	52,618	10.2	44,439	11.3	8,075	19.2
Trophy	--	--	--	--	--	--	--	--
Other reasons	--	--	--	--	--	--	--	--
Second most important:								
Obtain meat	40,576	14.4	56,901	11.0	64,102	17.0	5,998	14.2
Problem animals	2,399	.9	4,666	.9	2,301	.6	2,365	5.6
Be with family, friends	71,176	25.3	140,999	27.1	125,497	33.3	11,696	27.8
Sport, recreation	74,546	26.5	129,889	25.1	88,617	23.5	12,316	29.2
Be close to nature	69,815	24.8	115,266	22.3	55,793	14.8	9,749	23.1
Trophy	8,540	3.0	13,402	2.6	9,724	2.6	--	--
Other reasons	4,862	1.7	15,362	3.0	--	--	--	--
None	9,422	3.3	41,620	8.0	31,057	8.2	--	--

[a] Reasons for hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Only residents are included in these segments.

[c] Other animals include crow, woodchuck, raccoon, fox, coyote, and other animals.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 175 Days of hunting on public land, California hunters grouped by type of game hunted, 1980.

Public land ownership[b]	Hunters[a]							
	Big game		Small game		Migratory birds		Other game[c]	
	Total	Mean	Total	Mean	Total	Mean	Total	Mean
Federal land	1,330305	7.2	1,320,925	9.8	245,212	6.1	52,424	7.3
State wildlife area, refuge	72,974	4.2	146,298	6.2	198,210	3.4	9,680	3.0
Other state-owned areas	143,333	4.7	39,283	2.4	48,315	7.1	4,078	1.0
Locally owned	154,536	6.6	834,903	10.5	471,298	13.6	160,462	8.5
Unknown public ownership	252,926	6.5	383,102	6.3	106,561	3.1	58,344	1.2

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes California residents who hunted in-state.

[b] Only hunters who indicated they hunted on public land were included here.

[c] Other animals include crow, woodchuck, raccoon, fox, and coyote. Sample size for California other animal hunters was less than 15.

Table 176. Hunting participation[a], by state wildlife management regions, California hunters grouped by type of game, 1980.

Hunters[b]	Days scouting		Days hunting[e]		Hunting trips[e]		No. of 1-day trips[c]	Average miles from home[d]	Average hours per day hunting
	Total[c]	Mean[c]	Total	Mean	Total	Mean			
Region 061									
Big game	93,386	6.3	458,471	9.5	137,947	2.9	4,862	252	7.0
Small game	--	--	144,948	6.6	49,459	2.2	--	270	2.8
Migratory birds	--	--	26,870	2.7	22,071	2.2	--	226	3.7
Other game[f]	--	--	58,344	12.0	19,448	4.0	--	165	1.0
Region 062									
Big game	174,037	7.8	576,065	8.3	296,722	4.3	148,003	119	6.3
Small game	417,324	15.0	1,326,134	16.6	1,834,000	23.0	886,670	79	4.8
Migratory birds	127,699	4.1	493,104	5.2	457,978	4.9	387,972	70	4.8
Other game[f]	--	--	32,623	8.0	32,623	8.0	--	60	5.0
Region 063									
Big game	68,224	2.8	348,383	5.1	322,028	4.8	265,428	51	6.3
Small game	626,824	20.8	608,046	8.1	583,646	7.8	585,074	55	4.5
Migratory birds	422,801	64.0	409,120	8.7	405,249	8.6	375,944	55	4.0
Other game[f]	--	--	10,017	1.3	10,018	1.3	5,136	25	9.0
Region 064									
Big game	71,027	3.3	398,270	6.6	216,739	3.6	100,490	155	7.2
Small game	203,043	7.7	974,548	6.3	821,063	5.0	373,661	140	5.6
Migratory birds	117,275	5.3	702,929	6.5	582,503	5.4	384,177	107	5.3
Other game[f]	--	--	192,611	16.4	192,611	16.4	192,611	20	4.2
Region 065									
Big game	215,151	6.3	387,634	4.9	227,366	2.9	111,249	106	7.1
Small game	453,288	6.1	1,941,687	6.8	1,770,983	6.2	1,280,073	86	5.5
Migratory birds	97,217	3.2	836,546	5.4	655,335	4.2	479,414	122	5.5
Other game[f]	66,215	8.0	106,414	5.6	106,414	5.6	43,822	62	5.3

[a] Regional data may be based on a small number of observations. See Figure 3 for a map of state regions.

[b] Hunter segments defined by type of game. Groups are not mutually exclusive in that a hunter could appear in more than one group. Inclusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported informtaion on this item.

[d] Miles one-way from home to usual hunting place.

[e] Numbers differ slightly from those in the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation--California because of rounding.

[f] Other animals include crow, woodchuck, raccoon, fox, and coyote. Sample size for California other animal hunters was less than 15.

Table 177. Travel-related expenses, California hunters grouped by type of game hunted, 1980. (Totals in thousands of dollars.)

	Hunter groups[a] and dollars spent							
	Big game		Small game		Migratory birds		Other game[b]	
Expenditure types	Total amount	Ave. per hunter	Total amount	Ave. per hunter	Total amount	Ave. per hunter	Total amount	Ave. per hunter
Food	36,900	97.94	32,600	53.50	20,500	46.07	269	4.84
Lodging	4,309	11.45	6,473	10.61	4,088	9.18	--[c]	--[c]
Public transportation	1,719	4.57	3,958	6.49	1,096	2.46	--[c]	--[c]
Private transportation	29,100	77.28	36,000	58.98	24,200	54.39	1,215	21.87
Total travel-related expenses	72,000		78,900		47,300		1,484	
In-state travel-related expenses	40,000	106.38	65,100	106.68	45,000	101.10	1,484	26.71

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Only residents are included in these segments.

[b] Other animals include crow, woodchuck, raccoon, fox, and coyote. Sample size for California other animal hunters was less than 15.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 178. Access-related expenses, California hunters grouped by type of game hunted, 1980. (Totals in thousands of dollars.)

	Hunter groups[a] and dollars spent							
	Big game		Small game		Migratory birds		Other game[b]	
	Total amount[c]	Ave. per hunter[c]	Total amount[c]	Ave. per hunter[c]	Total amount[c]	Ave. per hunter[c]	Total amount[c]	Ave. per hunter[c]
Guide fees	682	1.81	--	--	--	--	--	--
Pack trip fees	--	--	--	--	--	--	--	--
Public land access or use fees	419	1.11	223	.37	847	1.90	21	.37
Private land access or use fees	138	.37	1,409	2.31	2,272	5.10	--	--
Equipment rental	279	.74	32	.05	305	.68	--	--
Total access-related expenses	1,518		2,216		3,975		21	.37
In-state access-related expenses	1,378	3.66	1,664	2.73	3,395	7.62	21	.37

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[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Only residents are included in these segments.

[b] Other animals include crow, woodchuck, raccoon, fox, and coyote. Sample size for California other animal hunters was less than 15.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 179. Days of participation and deer hunting satisfaction, by state wildlife management regions, California hunters grouped by species hunted, 1980.

Region[a]/Hunter segment[b]	Days of hunting		Deer hunting satisfaction[c]
	Total	Mean	
Region 061			
Deer hunters	443,885	9.2	5.6
Pheasant hunters	10,039	1.4	
Goose hunters	7,612	3.0	
Duck hunters	26,870	2.7	
Region 062			
Deer hunters	542,662	7.8	4.9
Pheasant hunters	841,981	12.7	
Goose hunters	324,185	8.5	
Duck hunters	393,356	5.9	
Region 063			
Deer hunters	201,365	4.4	6.2
Pheasant hunters	44,403	1.9	
Goose hunters	--[d]	--[d]	
Duck hunters	163,388	10.1	
Region 064			
Deer hunters	395,955	6.6	4.3
Pheasant hunters	348,774	4.3	
Goose hunters	273,451	14.3	
Duck hunters	330,644	8.2	
Region 065			
Deer hunters	382,584	5.2	3.8
Pheasant hunters	154,671	3.7	
Goose hunters	95,264	4.9	
Duck hunters	229,876	4.8	

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[a] Regional data may be based on a small number of observations See Figure 3 for a map of state regions.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Inclusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Satisfaction ranking on a scale of 1 to 10, where 1 is low and 10 is high.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 180. Age of introduction to hunting[a], California hunters grouped by species hunted, 1980.

Hunter segment[b]	Beginning age (years) 1-5 Number of hunters	 1-5 Percent	 6-8 Number of Hunters	 6-8 Percent	 9-11 Number of hunters	 9-11 Percent	 12-15 Number of hunters	 12-15 Percent	 16-17 Number of hunters	 16-17 Percent
Deer hunters	20,521	7.7	11,603	4.4	49,909	18.8	114,524	43.0	18,470	6.9
Pheasant hunters	16,628	7.9	13,636	6.5	47,538	22.7	72,026	34.4	20,610	9.8
Goose hunters	16,766	23.8	4,220	6.0	25,846	36.8	17,465	24.8	2,784	4.0
Duck hunters	19,165	11.8	13,276	8.2	49,263	30.2	49,190	30.2	6,929	4.3

Hunter segment[b]	18-24 Number of hunters	18-24 Percent	25-34 Number of hunters[c]	25-34 Percent[c]	35-44 Number of hunters[c]	35-44 Percent[c]	45+ Number of hunters[c]	45+ Percent[c]
Deer hunters	36,813	13.8	8,794	3.3	5,447	2.0	---	---
Pheasant hunters	35,174	16.8	3,871	1.8	---	---	---	---
Goose hunters	3,239	4.6	---	---	---	---	---	---
Duck hunters	14,749	9.1	10,286	6.3	---	---	---	---

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[a] Introduction to hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Inclusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 181. Years of hunting[a], California hunters grouped by species hunted, 1980.

Hunter segment[b]	Years of participation											
	1-2		3-5		6-8		9-11		12-15		16-17	
	Number of hunters	Percent	Number of hunters	Percent	Number of hunters	Percent	Number of hunters	Percent	Number of hunters	Percent	Number of hunters[c]	Percent[c]
Deer hunters	31,925	12.0	31,273	11.8	33,274	12.5	20,587	7.7	19,470	7.3	11,363	4.3
Pheasant hunters	27,765	13.3	28,489	13.6	30,996	14.8	16,029	7.7	21,892	10.5	---	---
Goose hunters	2,399	3.4	2,315	3.3	2,399	3.4	8,001	11.4	5,551	7.9	---	---
Duck hunters	21,217	13.0	6,041	3.7	22,005	13.5	18,131	11.1	19,002	11.7	---	---

Hunter segment[b]	18-24		25-34		35-44		45-54		55-64		65+	
	Number of hunters	Percent	Number of hunters	Percent	Number of hunters	Percent	Number of hunters[c]	Percent[c]	Number of hunters[c]	Percent[c]	Number of hunters[c]	Percent[c]
Deer hunters	48,801	18.3	27,091	10.2	25,058	9.4	11,923	4.5	---	---	5,317	2.0
Pheasant hunters	35,133	16.8	29,994	14.3	17,362	8.3	---	---	1,821	.9	---	---
Goose hunters	10,893	15.5	11,578	16.5	17,183	24.4	2,702	3.8	7,301	10.4	---	---
Duck hunters	25,515	15.7	16,833	10.3	21,328	13.1	5,486	3.4	7,301	4.5	---	---

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[a] Years of participation in hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by species hunted. A hunter could appear in more than one group. Inclusion in a segment was based on in-state hunting in at least one of five most often hunted places.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 182. Most important reason for hunting[a], California hunters grouped by species hunted, 1980.

Hunter segment[b]	Most important reason							
	Obtain meat		Problem animals		Be with family, friends		Sport, Recreation	
	Number	Percent	Number[c]	Percent[c]	Number	Percent	Number	Percent
Deer hunters	95,409	36.5	---	---	10,210	3.9	120,328	46.1
Pheasant hunters	50,005	24.4	---	---	21,314	10.4	115,796	56.6
Goose hunters	10,579	15.0	---	---	10,578	15.0	41,014	58.3
Duck hunters	38,927	24.6	---	---	33,599	20.6	72,458	44.5

Hunter segment[b]	Be close to nature		Trophy		Other reasons	
	Number	Percent	Number[c]	Percent[c]	Number[c]	Percent[c]
Deer hunters	35,272	13.3	---	---	---	---
Pheasant hunters	17,505	8.6	---	---	---	---
Goose hunters	8,150	11.6	---	---	---	---
Duck hunters	13,012	8.0	---	---	---	---

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[a] Reasons for hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Incllusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 183. Second most important reason for hunting[a] California hunters grouped by species hunted, 1980.

Hunter segment[b]	Obtain meat		Problem animals		Be with family, friends		Sport, Recreation	
	Number	Percent	Number[c]	Percent[c]	Number	Percent	Number	Percent
Deer hunters	40,576	15.8	2,399	.9	56,054	21.9	74,546	29.1
Pheasant hunters	30,323	14.8	2,301	1.1	51,578	25.2	56,819	27.8
Goose hunters	14,164	20.1	---	---	24,188	34.4	13,815	19.6
Duck hunters	25,537	16.2	---	---	46,696	29.6	41,698	26.4

Hunter segment[b]	Be close to nature		Trophy		Other reasons		None	
	Number	Percent	Number[c]	Percent[c]	Number[c]	Percent[c]	Number	Percent
Deer hunters	63,550	24.8	4,862	1.9	4,862	1.8	9,422	3.5
Pheasant hunters	48,583	23.7	---	---	---	---	4,862	7.2
Goose hunters	13,500	19.2	---	---	---	---	4,655	6.6
Duck hunters	29,602	18.7	4,862	3.0	---	---	9,601	6.1

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[a] Reasons for hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by species hunted. A hunter could appear in more than one group. Inclusion in a segment was based on in-state hunting in at least one of five most often hunted places.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 184 Days of hunting and expenditures for equipment, California special weapon hunters, 1980.

Type of game pursued	Hunters[a]			
	Bow and arrow[b]		Muzzle loader[c]	
	Total days	Average	Total days	Average
Big game	206,800	6	99,700	20
Small game	162,400	5	4,900	1
Migratory birds	70,700	3	--[e]	--[e]
Other animals	4,900	1	4,700	2
Days hunted in-state	381,300	7	109,300	9
Days hunted out-of-state	62,500	9	--[e]	--[e]
Total days	443,800		109,300	
Proportion of total hunting days[d]	3.7%		.9%	
Expenditures for special equipment	$3,160,327		[f]	

[a] Hunter segments defined by special weapon used. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes California residents who used these weapons.

[b] Sample size less than 15.

[c] Sample size less than 5.

[d] Source: 1980 Survey of Fishing, Hunting, and Wildlife Associated Recreation. U.S. Dept. of Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of Census. U.S. Gov't. Printing Office, 1980.

[e] Dashes indicate that no person in the sample reported information on this item.

[f] Information not available.

Table 185 Age of introduction to hunting[a], and years of participation[b], California special weapon hunters, 1980.

Age and years of participation	Hunters[c]			
	Bow and arrow[d]		Muzzle loader[e]	
	Number[f]	Percent[f]	Number[f]	Percent[f]
Beginning age:				
1-5 years	--	--	4,983	40.8
6-8 years	9,809	15.8	2.365	19.4
9-11 years	19,032	30.7	--	--
12-15 years	9,534	15.4	4,862	39.8
16-17 years	--	--	--	--
18-24 years	13,341	21.5	--	--
25-34 years	10,286	15.4	--	--
35+ years	--	--	--	--
Years of participation:				
1-2 years	18,911	30.5	--	--
3-5 years	4,716	7.6	4,862	39.8
6-8 years	4,862	7.8	--	--
9-11 years	--	--	--	--
12-15 years	6,966	11.2	--	--
16-17 years	--	--	4,983	40.8
28-24 years	26,547	42.8	2,365	19.4
25-34 years	--	--	--	--
35+ years	--	--	--	--

[a] Introduction to hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Years of participation in hunting in general, not hunting a particular species, game type, or using special weapons.

[c] Hunter segments defined by special weapon used. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes California residents who used these weapons.

[d] Sample size less than 15.

[e] Sample size less than 5.

[f] Dashes indicate that no person in the sample reported information on this item.

Table 186. Reasons for hunting[a], California special weapon hunters, 1980.

Most important and second most important reasons	Hunters[b] Bow and arrow[c] Number[e]	Percent[e]	Muzzle loader[d] Number[e]	Percent[e]
Most important:				
Obtain meat	15,233	24.6	7,348	60.2
Problem animals	4,882	7.9	--	--
Be with family, friends	--	--	--	--
Sport. recreatopm	15,040	24.3	4,862	39.8
Be close to nature	26,847	43.3	--	--
Trophy	--	--	--	--
Other reasons	--	--	--	--
Second most important:				
Obtain meat	9,744	15.7	--	--
problem animals	--	--	2,365	19.4
Be with family, friends	31,950	47.8	4,862	39.8
Sport, recreation	9,809	14.7	4,983	40.8
Be close to nature	4,716	7.1	--	--
Trophy	5,782	8.6	--	--
Other reasons	--	--	--	--

[a] Reasons for hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by special weapon used. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes California residents who used these weapons.

[c] Sample size less than 15.

[d] Sample size less than 5.

[e] Dashes indicate that no person in the sample reported information on this item.

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Table 187. Membership in organizations, California special weapon hunters, 1980.

Organization groups[b]	Hunters[a]			
	Bow and arrow[c]		Muzzle loader[d]	
	Number[e]	Percent[e]	Number[e]	Percent[e]
A	--	--	--	--
B	--	--	--	--
C	9,663	14.4	4,862	39.8
D	4,882	7.3	--	--
E	14,545	21.7	4,862	39.8
F	--	--	--	--
No organization	52,339	78.3	7,348	60.2

[a] Hunter segments defined by special weapon used. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes California residents who used these weapons.

[b] Groups include: A-Defenders of Wildlife, Fund for Animals, Friends of Animals; B-Trout Unlimited, B.A.S.S.; C-Ducks Unlimited, Nat'l. Rifle Association, Safari Club International; D-American Museum of Natural History, Nat'l. Geographic Society, Nature Conservancy, Sierra Club, Wilderness Society; E-American Birding Association, Izaak Walton League, Nat'l. Audubon Society, Nat'l. Wildlife Federation, The Wildlife Society, World Wildlife Fund; and F-Other organizations.

[c] Sample size less than 15.

[d] Sample size less than 5.

[e] Dashes indicate that no person in the sample reported information on this item.

Table 188 Participants, California angler groups, 1980.

Groups	Total (in thousands)	Percent of state population[a]	Percent of state sportsmen[a]
Fishermen by -			
Type of fishing:			
Freshwater[b]	2,792	15.4	69.3
Saltwater[c]	1,935	10.7	48.1
Fishing location[d]:			
Large reservoirs	1,396		
Small reservoirs	399		
Natural lakes	1,100		
Rivers and streams	1,332		
Deep Sea	788		
Surf, Shore	1,036		
Sounds, tidal pools	347		
Specialty fishing:			
Ice fishermen[e]	9		
Species fished[f]:			
Freshwater -			
Bass	1,192	6.6	29.6
Panfish	944	5.2	23.4
Walleye	--[e]		
Pike	---[e]		
Trout	1,918	10.5	47.6
Salmon/steelhead	241	1.3	6.0
Saltwater -			
Salmon	209	1.1	5.2
Steelhead	--[e]		
Rockfish	687	3.8	17.1

[a] Population 16 years old and older. Source: 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, U.S. Dept. of the Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of the Census. U.S. Gov't. Printing Office, 1982.

[b] Includes California residents who fished freshwater in state of residence.

[c] Includes California residents who fished saltwater, in or out of California.

[d] Includes California residents who fished these locations.

[e] Sample size 5 or less. Dashes indicate that no person in the sample reported information on this item.

[f] Includes California residents who fished for species in state of residence in at least one of anglers' five most often fished places.

Table 189. Age of introduction to fishing[a] and years of participation[b], California fishermen grouped by type of fishing, 1980.

Age and years of participation	Fishermen[c]			
	Freshwater[d]		Saltwater[e]	
	Number	Percent	Number	Percent
Beginning age:				
1-5 years	844,874	30.2	512,920	28.0
6-8 years	819,481	29.3	509,332	27.8
9-11 years	563,104	20.2	406,836	22.2
12-15 years	203,090	7.3	163,057	8.9
16-17 years	72,820	2.7	77,305	4.2
18-24 years	153,412	5.5	105,310	5.7
25-34 years	111,527	4.0	39,586	2.2
35-44 years	4,655	.2	--[f]	--[f]
45-54 years	2,784	.1	16,044	.9
55-64 years	--[f]	--[f]	--[f]	--[f]
65+ years	13,381	.5	2,778	.2
Years of participation:				
1-2 years	124,233	4.5	49,036	2.7
3-5 years	272,571	9.9	184,735	10.2
6-8 years	145,612	5.3	118,066	6.5
9-11 years	359,341	12.8	141,829	7.8
12-15 years	391,369	14.0	199,884	11.1
16-17 years	124,271	4.4	67,901	3.8
18-24 years	395,240	14.1	351,140	19.4
25-34 years	439,510	15.7	383,406	21.2
35-44 years	314,040	11.2	196,088	10.8
45-54 years	126,042	4.5	73,067	4.0
55-64 years	59,574	2.1	41,687	2.3
65+ years	9,664	.3	2,044	.1

[a] Introduction to fishing in general, not fishing a particular species, fishing type, or method.

[b] Years of participation in fishing in general, not fishing a particular species, fishing type, or method.

[c] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in more than one group.

[d] Includes California residents who fished freshwater in state of residence.

[e] Includes California residents who fished saltwater.

[f] Dashes indicate that no person in the sample reported information on this subject.

Table 190. Membership in organizations, California fishermen grouped by type of fishing, 1980.

	Fishermen[a]			
	Freshwater[b]		Saltwater[c]	
Organization groups[d]	Number	Percent[e]	Number	Percent[e]
A	16,472	.6	14,451	.8
B	40,479	1.4	45,344	2.5
C	180,470	6.5	157,018	8.5
D	262,534	9.4	189,647	10.3
E	217,295	7.8	230,045	12.5
F	36,033	1.3	47,974	2.6
No organization	2,379,016	85.1	1,495,966	81.3

[a] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in more than one group.

[b] Includes California residents who fished freshwater in state of residence.

[c] Includes California residents who fished saltwater.

[d] Groups include: A-Defenders of Wildlife, Fund for Animals, Friends of Animals; B-Trout Unlimited, B.A.S.S.; C-Ducks Unlimited, Nat'l. Rifle Association, Safari Club Intrnational; D-American Museum of Natural History, Nat'l. Geographic Society, Nature Conservancy, Sierra Club, Wilderness Society; E-American Birding Association, Izaak Walton League, Nat'l. Audubon Society, Nat'l. Wildlife Federation, The Wildlife Society, World Wildlife Fund; and F-Other organizations.

[e] May total more than 100 percent due to membership in more than one group.

Table 191. Other locations fished by California fishermen grouped by fishing location, 1980.

Anglers[a]	Fishing locations[b] Large reservoirs	 Small reservoirs	 Natural lakes, ponds	 Rivers and streams
	-----number of fishermen-----			
Large reservoir (10+ acres)		229,402 (16.4%)	444,966 (31.9%)	586,060 (41.4%)
Small reservoir (<10 acres)	229,402 (57.5%)		199,603 (50.1%)	172.565 (43.3%)
Natural lake, pond	444,966 (40.1%)	199,603 (18.0%)		523,915 (47.2%)
River and stream	578,060 (43.4%)	172,565 (13.0%)	523,915 (39.3%)	

[a] Angler segments defined by location fished. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Only residents are included in these segments.

[b] These fishing locations may or may not have been located in an angler's state of residence.

Table 192. Fishing participation, by state wildlife management regions, California fishermen grouped by type of fishing, 1980.

Region[a]/ Anglers[b]	Days fishing[d] Total (in thousands)	Days fishing[d] Mean	Fishing trips[d] Total (in thousands)	Fishing trips[d] Mean	Number of day trips (in thousands)	Average miles driven[c]	Average hours per day fishing
Region 061							
Freshwater	2,938	14.4	454	2.2	3	375	6.0
Saltwater	27	5.2	5	1.0	--	534	8.0
Region 062							
Freshwater	9,749	13.4	7,540	10.3	4,769	101	5.3
Saltwater	315		315	12.8	305	25	4.6
Region 063							
Freshwater	6,660	11.1	5,647	9.5	4,797	73	5.3
Saltwater	6,423	10.7	6,067	10.1	5,309	55	5.8
Region 064							
Freshwater	7,387	10.6	5,600	8.0	4,049	146	5.1
Saltwater	0		0		0		
Region 065							
Freshwater	15,521	12.2	13,361	10.7	12,000	101	5.6
Saltwater	9,538	8.2	9,329	8.0	8,534	46	6.0

[a] Regional data may be based on a small number of observations. See Figure 3 for a map of state regions.

[b] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Inclusion in a segment is based on resident in-state fishing in at least one of anglers' five most often fished locations.

[c] Miles one-way from home to usual fishing place.

[d] Numbers differ slightly from those in the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation--California because of rounding.

Table 193 Expenditures, California fishermen grouped by type of fishing, 1980.

(Totals in thousands of dollars)

	Freshwater[a]		Saltwater[a]	
Expenditure types	Total amount	Ave. per fisherman	Total amount	Ave. per fisherman
Guide fees	2,666	.86	6,655	3.62
Pack trip or package fees	612	.20	15,701	8.53
Public land access or use fees	13,326	4.30	377	.20
Private land access or use fees	4,304	1.39	172	.09
Boat launching fees	7,353	2.37	3,618	1.97
Equipment rental fees	15,191	4.91	32,023	17.40
Total access-related expenses	43,000		57,400	
In-state access-related expenses	38,769	12.52	50,085	27.22
Total travel-related expenses[b]	614,000		198,000	
In-state travel-related expenses[b]	487,448	157.41	169,780	92.26

[a] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Only residents are included in these segments.

[b] Includes food, transportation, and lodging expenses.

Table 194 Days of participation, by state wildlife management regions, California fishermen grouped by species fished, 1980.

Region[a]/angler segment[b]	Days fishing Total (thousands of days)	Mean
Region 061		
Freshwater:		
Bass	1,456	22.4
Panfish	1,405	26.8
Walleye[c]		
Pike[c]		
Trout	1,981	14.0
Salmon/steelhead	769	14.9
Saltwater:		
Salmon	12	2.4
Steelhead[c]		
Rockfish	14	6.0
Region 062		
Freshwater:		
Bass	4,071	18.4
Panfish	2,417	17.3
Walleye[c]		
Pike[c]		
Trout	5,090	11.4
Salmon/steelhead	2,908	24.1
Saltwater:		
Salmon		
Steelhead[c]		
Rockfish	296	30.0
Region 063		
Freshwater:		
Bass	3,819	13.1
Panfish	2,602	11.9
Walleye[c]		
Pike[c]		
Trout	3,067	10.2
Salmon/steelhead	539	8.2
Saltwater:		
Salmon	744	4.5
Steelhead[c]		
Rockfish	2,304	7.6

Table 194. Continued.

	Days fishing	
Region[a]/angler segment[b]	Total (thousands of days)	Mean
Region 064		
Freshwater:		
Bass	2,669	10.5
Panfish	2,551	13.2
Walleye[c]		
Pike[c]		
Trout	3,915	7.9
Salmon/steelhead	308	8.7
Saltwater:		
Salmon		
Steelhead[c]		
Rockfish		
Region 065		
Freshwater:		
Bass	7,249	13.9
Panfish	7,165	15.9
Walleye[c]		
Pike[c]		
Trout	9,571	10.7
Salmon/steelhead	115	10.0
Saltwater:		
Salmon	20	1.4
Steelhead[c]		
Rockfish	3,105	8.8

---

[a] Regional data may be based on a small number of observations. See Figure 3 for a map of state regions.

[b] Angler segments defined by species fished. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Inclusion in a segment is based on resident in-state fishing in at least one of anglers' five most often fished locations.

[c] No in-state fishing indicated.

Table 195. Age of introduction to fishing[a], California fishermen grouped by species fished, 1980.

Angler segment[b]	Beginning age (years) 1-5		6-8		9-11		12-15		16-17	
	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]
Freshwater:										
Bass	407,774	32.6	345,374	27.6	259,593	20.8	83,143	6.7	28,749	2.3
Panfish	391,308	39.3	228,271	22.9	176,360	17.7	76,297	7.7	36,122	3.6
Walleye[d]	4,599	18.4	20,411	81.6	---	---	---	---	---	---
Pike[d]	2,368	9.0	23,931	91.0	---	---	---	---	---	---
Trout	653,468	33.2	520,300	26.4	426,528	21.6	154,654	7.8	65,004	3.3
Salmon/steelhead	86,638	34.2	69,998	27.6	52,103	20.6	16,302	6.4	16,898	6.7
Saltwater:										
Salmon	61,649	29.8	71,540	34.5	62,585	30.2	2,784	1.3	2,315	1.1
Steelhead[d]	---	---	---	---	2,458	100.0	---	---	---	---
Rockfish	198,582	29.0	194,969	28.4	156,803	22.9	22,244	3.2	55,012	8.0

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Table 195. Continued.

Angler segment[b]	18-24		25-34		35-54		55+	
	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]
Freshwater:								
Bass	52,573	4.2	67,280	5.4	2,784	.2	2,778	.2
Panfish	56,275	5.7	20,389	2.0	---	---	10,603	1.1
Walleye[d]	---	---	---	---	---	---	---	---
Pike[d]	---	---	---	---	---		---	---
Trout	99,086	5.0	41,106	2.1	7,439	.3	2,778	.1
Salmon-steelhead	6,731	2.7	4,534	1.8	---	---	---	---
Saltwater:								
Salmon	4,029	1.9	2,234	1.1	---	---	---	---
Steelhead[d]	---	---	---	---	---	---	---	---
Rockfish	42,764	6.2	12,521	1.8	2,784	.4	---	---

Beginning age (years)

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[a] Introduction to fishing in general, not fishing a particular species, fishing type, or method.

[b] Angler segments defined by species fished. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Inclusion in a segment is based on resident in-state fishing in at least one of anglers' five most often fished locations.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Sample size 5 or less.

Table 196. Years of fishing[a], California fishermen grouped by species fished, 1980.

Angler segment[b]	1-2 Number of anglers[c]	1-2 Percent[c]	3-5 Number of anglers[c]	3-5 Percent[c]	6-8 Number of anglers[c]	6-8 Percent[c]	9-11 Number of anglers[c]	9-11 Percent[c]	12-15 Number of anglers[c]	12-15 Percent[c]	16-17 Number of anglers[c]	16-17 Percent[c]
Freshwater:												
Bass	62,674	5.1	84,577	6.9	74,892	6.1	141,702	11.3	213,680	17.0	79,112	6.4
Panfish	23,521	2.4	81,803	8.3	43,939	4.5	80,413	8.2	143,766	14.4	28,437	2.9
Walleye[d]	---	---	---	---	---	---	2,231	8.4	2,368	8.9	9,753	36.6
Pike[d]	---	---	---	---	---	---	---	---	15,640	59.5	---	---
Trout	16,218	.8	204,530	10.5	90,872	4.7	229,789	11.8	313,802	16.1	108,728	5.6
Salmon/steelhead	1,617	.6	7,845	3.1	12,673	5.0	10,913	4.3	43,676	17.1	18,712	7.3
Saltwater:												
Salmon	---	---	11,396	5.5	1,679	.8	11,987	5.7	35,735	17.1	22,517	10.8
Steelhead[d]	---	---	---	---	---	---	---	---	---	---	---	---
Rockfish	32,128	4.8	44,760	6.6	29,130	4.3	63,089	9.4	41,178	6.1	36,574	5.4

Table 196. Continued.

Angler segment[b]	Years of participation									
	18-24		25-34		35-44		45-54		55+	
	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]
Freshwater:										
Bass	217,599	17.7	182,278	14.8	109,584	8.9	36,386	3.0	30,177	2.4
Panfish	133,985	13.7	225,616	23.0	159,020	16.2	41,038	4.2	19,637	2.0
Walleye[d]	---	---	---	---	10,659	40.0	1,613	6.1	---	---
Pike[d]	---	---	---	---	10,659	40.5	---	---	---	---
Trout	342,006	17.5	335,718	17.2	198,724	10.2	76,613	3.9	35,332	1.8
Salmon/steelhead	35,788	14.0	34,285	13.5	37,603	14.8	36,801	14.4	14,905	5.9
Saltwater:										
Salmon	59,765	28.6	12,135	5.8	31,694	15.2	19,402	9.3	2,440	1.2
Steelhead[d]	2,458	100.0	---	---	---	---	---	---	---	---
Rockfish	129,243	19.2	180,394	26.7	80,148	11.9	30,102	4.5	7,919	1.2

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[a] Years of participation in fishing in general, not fishing a particular species, fishing type, or method.

[b] Angler segments defined by species fished. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Inclusion in a segment is based on resident in-state fishing in at least one of anglers' five most often fished locations.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Sample size 5 or less.

Table 197. Number of participants, days of fishing, and expenditures for special equipment, California ice fishermen, 1980.

	Number of participants	Days fishing			Expenditures for special equipment
		In-state	Out-of-state	Total	
Ice fishermen[a]	9,000	54,600	9,549	64,149[b]	$105,500

[a] Sample size for California ice fishermen was less than 10.

[b] Approximately 10 percent of total California resident fishing days (Source: 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. U.S. Dept. of Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of Census. U.S. Gov't. Printing Office, 1982).

Table 198. Age of introduction to fishing and years of participation, California ice fishermen, 1980.

Age and years of participation	Percent of ice fishermen[a,b]
Beginning age:	
1-5 years	29.9
6-8 years	10.7
9-11 years	10.5
12-15 years	--
16-17 years	--
18-24 years	--
25-34 years	49.0
35+ years	--
Years of participation:	
1-2 years	--
3-5 years	--
6-8 years	--
9-11 years	--
12-15 years	81.4
16-17 years	--
18-24 years	--
25-34 years	18.6
35+ years	--

[a] Sample size for California ice fishermen was less than 10.

[b] Dashes indicate that no person in the sample reported information on this item.

Table 199. Membership in organizations, California ice fishermen, 1980.

Organization groups[a]	Percent of ice fishermen[b,c,d]
A	--
B	10.5
C	21.7
D	--
E	32.2
F	--
No organization	67.8

[a] Groups include: A-Defenders of Wildlife, Fund for Animals, Friends of Animals; B-Trout Unlimited, B.A.S.S.; C-Ducks Unlimited, Nat'l. Rifle Association, Safari Club International; D-American Museum of Natural History, Nat'l. Geographic Society, Nature Conservancy, Sierra Club, Wilderness Society; E-American Birding Association, Izaak Walton League, Nat'l. Audubon Society, Nat'l. Wildlife Federation, The Wildlife Society, World Wildlife Fund; and F-Other organizations.

[b] Sample size for California ice fishermen was less than 10.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] May total more than 100 percent due to membership in more than one organization.

Appendix D: Oregon Data

Table 320. Selected characteristics, Oregon sportsmen and nonsportsmen, 1980.

Characteristic	Sportsmen[a] (percent)	Nonsportsmen[b] (percent)
Marital Status[c]		
Married	70.3	60.5
Widowed	2.2	10.3
Divorced	5.6	7.0
Separated	1.7	1.0
Never Married	20.1	21.2
Sex[d]		
Male	66.1	36.6
Female	33.0	63.4
Education		
None	0	.5
Kindergarten	.8	.6
Elementary	24.7	24.5
High school	46.0	42.1
College	28.5	32.3
Average age[d]	32.6 years	39.6 years
Population growing up[e]		
Large urban	8.5	10.6
Medium urban	18.0	17.3
Small city	14.8	14.5
Small town	25.1	24.0
Rural	33.6	33.6
Employed[e,f]		
Yes	68.4	51.2
No	31.6	48.8
Race[d]		
White	92.7	84.1
Black	2.6	8.9
American Indian, Aleut, Eskimo	4.4	4.7
Asian, Pacific Islander	.1	1.2
Other	.2	1.0
Site of residence[d]		
Urban	64.3	71.9
Rural	35.7	28.1
Average household size[d]	3.5 persons	3.2 persons

[a] U.S. population age 6 years old and older who hunted or fished in 1980.

[b] U.S. population age 6 years old and older who did no hunting or fishing in 1980.

[c] Persons 14 years old and older.

[d] Persons 6 years old and older.

[e] Persons 16 years old and older.

[f] Defined as having a job or owning a business. Does not include persons who are retired, going to school, or keeping house.

Table 321. Participants, Oregon hunter groups, 1980.

Groups	Number of hunters	Percent of state population[a]	Percent of state sportsmen[a]
Hunters by -			
Type of game[b]			
Big game	291,700	14.4	38.3
Small game	111,800	5.5	14.7
Migratory birds	81,000	4.0	10.6
Other animals	31,200	1.5	4.1
Special weapons used:			
Bow and arrow	19,300	.9	2.5
Muzzle loader[c]	3,900	.2	.5
Species pursued			
Deer hunters	283,500	14.0	37.1
Elk hunters	105,700	5.2	13.9
Antelope hunters	4,800	.2	.6
Bear hunters	13,400	.6	1.7
Goose hunters	36,900	1.8	4.8
Duck hunters	59,800	3.0	7.9

[a] Population 16 years old and older. Source: 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, U.S. Dept. of the Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of the Census. U.S. Gov't. Printing Office, 1982.

[b] Includes Oregon residents who hunted these game types in state of residence.

[c] Sample size less than 10.

[d] Includes Oregon residents who hunted species in state of residence in at least one of hunters' five most often hunted places.

Table 322. Age of introduction to hunting[a], Oregon hunters grouped by type of game hunted, 1980.

	Hunter segments[b]							
	Big game		Small game		Migratory birds		Other game[c]	
Beginning age	Number	Percent	Number[d]	Percent[d]	Number[d]	Percent[d]	Number[d]	Percent[d]
1-5 years	7,959	2.7	4,074	3.7	2,865	3.6	1,530	5.0
6-8 years	21,370	7.4	12,420	11.2	10,865	13.8	5,508	18.1
9-11 years	47,363	16.2	23,220	20.9	15,065	19.1	6,243	20.5
12-15 years	130,797	45.1	63,260	57.0	40,707	51.7	16,003	52.6
16-17 years	26,145	9.0	4,606	4.1	4,942	6.3	1,115	3.7
18-24 years	31,913	11.0	568	.5	1,903	2.4	--	--
25-34 years	14,561	5.0	2,865	2.6	2,445	3.1	--	--
35-44 years	5,668	2.0	--	--	--	--	--	--
45-54 years	2,363	.8	--	--	--	--	--	--
55+ years	1,770	.6	--	--	--	--	--	--

[a] Introduction to hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who hunted in-state.

[c] Other animals include crow, woodchuck, raccoon, fox, coyote, and others.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 323. Years of hunting[a], Oregon hunters grouped by type of game hunted, 1980.

Years of participation	Hunter segments[b]							
	Big game		Small game		Migratory birds		Other game[c]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-2 years	17,682	6.1	1,985	1.8	3,013	3.8	1,313	4.3
3-5 years	27,050	9.3	11,613	10.4	8,548	10.8	433	1.4
6-8 years	25,304	8.7	7,607	6.8	8,865	11.3	2,548	8.4
9-11 years	30,341	10.5	15,785	14.1	9,356	11.9	3,893	12.8
12-15 years	24,262	8.4	12,329	11.0	9,294	11.8	4,267	14.0
16-17 years	6,446	2.2	2,855	2.6	704	.9	704	2.3
18-24 years	60,818	21.0	27,990	25.0	17,750	22.5	8,695	28.6
25-34 years	35,321	12.2	15,293	13.7	10,152	12.9	3,395	10.9
35-44 years	27,687	9.6	10,249	9.2	7,360	9.3	1,766	5.7
45-54 years	21,462	7.4	3,719	3.3	2,785	3.5	3,384	10.8
55-64 years	9,026	3.1	1,588	1.4	--[d]	--[d]	--[d]	--[d]
65+ years	4,397	1.5	--[d]	--[d]	967	1.2	--[d]	--[d]

[a] Years of participation in hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who hunted in-state.

[c] Other animals include crow, woodchuck, raccoon, fox, coyote, and others.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 324. Membership in organizations, Oregon hunters grouped by type of game hunted, 1980.

Organization groups[b]	Hunter[a]							
	Big game		Small game		Migratory birds		Other game[c]	
	Number	Percent[d]	Number	Percent[d]	Number	Percent[d]	Number	Percent[d]
A	--[e]	--[e]	--[e]	--[e]	--[e]	--[e]	--[e]	--[e]
B	860	.3	759	.7	3,727	4.6	759	2.4
C	32,333	11.1	21,045	18.8	14,627	18.1	10,516	33.7
D	8,536	2.9	5,621	5.0	1,463	1.8	2,197	7.0
E	41,053	14.1	25,358	22.7	17,801	22.0	9,561	30.6
F	8,049	2.8	4,730	4.2	2,158	2.7	1,834	5.9
No organization	242,103	83.0	80,855	72.3	61,758	76.2	19,461	62.3

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who hunted in-state.

[b] Groups include: A-Defenders of Wildlife, Fund for Animals, Friends of Animals; B-Trout Unlimited, B.A.S.S.; C-Ducks Unlimited, National Rifle Association, Safari Club International; D-American Museum of Natural History, National Geographic Society, Nature Conservancy, Sierra Club, Wilderness Society; E-American Birding Association, Izaak Walton League, National Audubon Society, The Wildlife Society, World Wildlife Fund.

[c] Other animals include crow, woodchuck, raccoon, fox, coyote, and others.

[d] Percents may total more than 100 due to membership in more than one organization.

[e] Dashes indicate that no person in the sample reported information on this item.

Table 325. Reasons for hunting[a], Oregon hunters grouped by type of game hunted, 1980.

Most important and second most important reasons	Hunters[b]							
	Big game		Small game		Migratory birds		Other game[c]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Most important:								
Obtain meat	155,648	53.9	37,105	33.2	30,047	38.1	11,973	38.4
Problem animals	608	.2	2,407	2.2	--[d]	--[d]	2,407	7.7
Be with family/ friends	23,444	8.0	10,706	9.6	2,619	3.3	1,612	5.2
Sport, recreation	83,703	28.7	40,339	36.1	36,844	46.8	8,549	27.4
Be close to nature	21,587	7.4	19,164	17.1	7,903	10.0	5,157	16.5
Trophy	2,716	.9	1,527	1.4	793	1.0	793	2.5
Other reasons	1,314	.5	586	.5	586	.7	728	2.3
Second most important:								
Obtain meat	62,190	21.5	19,086	17.1	13,292	16.9	5,633	18.0
Problem animals	4,792	1.7	394	.4	112	.1	122	.4
Be with family/ friends	58,821	20.3	29,505	26.4	24,203	30.7	6,498	20.8
Sport, recreation	99,193	34.3	40,394	36.1	20,771	26.4	13,113	42.0
Be close to nature	42,183	14.6	15,736	14.1	14,877	18.9	2,949	9.4
Trophy	10,521	3.6	5,435	4.9	3,883	4.9	2,317	7.4
Other reasons	2,861	1.0	598	.5	--[d]	--[d]	598	1.9
None	8,545	3.0	687	.5	1,653	2.1	--[d]	--[d]

[a] Reasons for hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who hunted in-state.

[c] Other animals include crow, woodchuck, raccoon, fox, coyote, and other animals.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 326. Days of hunting on public land[a], Oregon hunters grouped by type of game hunted, 1980.

	Days by hunter segments[b]							
	Big game		Small game		Migratory birds		Other game[c]	
Public land ownership	Total	Mean	Total	Mean	Total	Mean	Total	Mean
Federal land	1,326,160	7.8	256,020	6.8	53,995	3.8	39,828	5.1
State wildlife area refuge	47,197	4.5	42,785	4.7	50,316	3.1	10,635	20.0
Other state-owned areas	190,188	9.1	60,106	8.9	14,344	2.9	2,937	4.0
Locally owned	234,723	7.4	144,829	6.6	139,577	12.2	43,254	8.7
Unknown public ownership	164,514	5.1	102,370	7.3	52,879	8.8	2,659	5.0

[a] Only hunters who indicated they hunted on public land were included here.

[b] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who hunted in-state.

[c] Other animals include crow, woodchuck, raccoon, fox, coyote, and others.

Table 327. Hunting participation, by state wildlife management regions[a], Oregon hunters grouped by type of game, 1980.

Hunters[b]	Days scouting Total[c]	Days scouting Mean[c]	Days hunting[e] Total	Days hunting[e] Mean	Hunting trips[e] Total	Hunting trips[e] Mean	No. of 1-day trips[c]	Average miles from home[d]	Average hours per day hunting
Region 411									
Big game	382,487	7.4	1,123,100	9.7	964,300	8.3	836,139	46	6.7
Small game	87,136	10.4	531,470	9.4	482,432	8.6	484,277	23	4.2
Migratory birds	18,862	3.2	216,844	5.5	218,359	5.3	207,986	20	4.9
Other game	--	--	42,826	9.1	42,826	9.1	42,218	50	3.3
Region 412									
Big game	37,068	10.5	119,304	5.5	83,281	3.7	81,370	33	4.2
Small game	4,567	5.0	160,879	12.6	160,879	12.6	157,210	49	5.6
Migratory birds	--	--	79,867	14.3	79,866	14.3	79,132	38	5.6
Other game	14,554	10.0	54,415	7.8	54,415	7.8	53,640	34	4.0
Region 413									
Big game	130,146	9.1	827,500	8.5	611,900	6.4	465,110	170	7.0
Small game	4,179	2.0	243,574	7.4	200,760	6.1	179,588	163	5.0
Migratory birds	568	1.0	73,009	7.2	71,838	7.1	66,545	81	4.8
Other game	--	--	113,819	9.8	173,266	14.9	172,324	28	4.9
Region 414									
Big game	1,468	2.0	78,798	6.0	16,391	1.3	--	317	7.4
Small game	3,130	1.0	75,454	5.0	38,151	2.5	14,388	244	6.2
Migratory birds	1,331	1.0	11,779	2.8	4,237	1.0	--	138	4.5
Other game	--	--	2,296	4.6	615	1.2	--	322	10.0
Region 415									
Big game	15,240	1.7	171,166	4.5	54,296	1.4	9,141	172	7.3
Small game	--	--	19,623	2.5	21,066	2.7	12,666	131	5.4
Migratory birds	--	--	61,744	5.2	42,194	3.5	29,702	177	5.9
Other game	--	--	11,159	1.8	8,150	1.0	1,448	172	6.0
Region 416									
Big game	82,495	6.0	464,892	8.0	417,491	7.1	378,183	54	7.3
Small game	3,179	1.6	177,658	11.2	177,707	11.2	160,231	40	3.9
Migratory birds	2,829	2.0	151,677	8.7	123,913	7.1	120,668	34	4.4
Other game	1,573	2.0	36,998	12.9	36,998	12.9	38,570	9	4.0

[a] Regional data may be based on a small number of observations. See Figure 8 for a map of state regions.

[b] Hunter segments defined by type of game. Groups are not mutually exclusive in that a hunter could appear in more than one group. Inclusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Miles one-way from home to usual hunting place.

[e] Numbers differ slightly from those in the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation--Oregon because of rounding.

Table 328. Travel-related expenses, Oregon hunters grouped by type of game hunted, 1980. (Totals in thousands of dollars)

	Hunter groups[a] and dollars spent							
	Big game		Small game		Migratory birds		Other game[b]	
Expenditure types	Total amount	Ave. per hunter	Total amount	Ave. per hunter	Total amount	Ave. per hunter	Total amount	Ave. per hunter
Food	15,555	52.95	3,366	29.27	2,504	29.42	679	20.90
Lodging	652	2.22	705	6.13	412	4.85	--[c]	--[c]
Public transportation	359	1.22	560	4.87	236	2.77	--[c]	--[c]
Private transportation	22,351	76.10	5,865	51.00	2,901	34.08	1,397	43.01
Total travel-related expenses	38,900		9,949		5,892		2,076	
In-state travel-related expenses	37,229	126.76	8,161	70.96	4,495	52.81	2,076	63.91

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Only residents are included in these segments.

[b] Other animals include crow, woodchuck, raccoon, fox, coyote, and others.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 329. Access-related expenses, Oregon hunters grouped by type of game hunted, 1980. (Totals in thousands of dollars)

	Hunter groups[a] and dollars spent							
	Big game		Small game		Migratory birds		Other game[b]	
Expenditure types	Total amount[c]	Ave. per hunter[c]	Total amount[c]	Ave. per hunter[c]	Total amount[c]	Ave. per hunter[c]	Total amount[c]	Ave. per hunter[c]
Guide fees	--	--	--	--	--	--	--	--
Pack trip or package fees	704	2.40	--	--	--	--	--	--
Public land access or use fees	--	--	13	.11	193	2.27	--	--
Private land access or use fees	--	--	169	1.47	--	--	--	--
Equipment rental	521	1.77	1,033	8.98	41	.49	--	--
Total access-related expenses	1,225		1,215		234		--	--
In-state access-related expenses	698	2.38	1,046	9.10	186	2.19	--	--

[a] Hunter segments defined by type of game hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Only residents are included in these segments.

[b] Other animals include crow, woodchuck, raccoon, fox, coyote, and others.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 330. Days of participation and deer hunting satisfaction, by state wildlife management regions, Oregon hunters grouped by species hunted, 1980.

Region[a]/ hunter segment[b]	Days of hunting		Deer hunting satisfaction[c,d]
	Total[c]	Mean[c]	
Region 411			
Deer hunters	968,262	8.9	4.6
Elk hunters	180,189	5.3	
Antelope hunters[e]	--	--	
Bear hunters[f]	93,207	18.4	
Goose hunters	74,853	4.4	
Duck hunters	143,933	4.8	
Region 412			
Deer hunters	76,650	3.7	7.0
Elk hunters	37,222	3.4	
Antelope hunters[e]	--	--	
Bear hunters[f]	11,820	20.7	
Goose hunters	62,116	20.9	
Duck hunters	64,395	16.4	
Region 413			
Deer hunters	470,659	5.5	5.1
Elk hunters	279,769	5.5	
Antelope hunters[e]	734	1.0	
Bear hunters[f]	14,127	7.9	
Goose hunters	53,707	7.3	
Duck hunters	47,141	6.5	
Region 414			
Deer hunters	65,273	5.9	5.4
Elk hunters	6,913	5.2	
Antelope hunters[e]	11,751	2.9	
Bear hunters[f]	--	--	
Goose hunters	5,121	1.8	
Duck hunters	6,453	1.5	
Region 415			
Deer hunters	158,329	4.4	4.3
Elk hunters	10,054	2.7	
Antelope hunters[e]	--	--	
Bear hunters[f]	4,050	3.0	
Goose hunters	58,088	4.8	
Duck hunters	51,900	5/5	

Table 330. Continued.

Region[a]/ hunter segment[b]	Days of hunting Total[c]	Days of hunting Mean[c]	Deer hunting satisfaction[c,d]
Region 416	383,308	7.4	
Deer hunters	383,308	7.4	5.9
Elk hunters	72,663	4.4	
Antelope hunters[f]	--	--	
Bear hunters[g]	34,603	7.5	
Goose hunters	33,219	14.6	
Duck hunters	119,893	10.0	

[a] Regional data may be based on a small number of observations. See Figure 8 for a map of state regions.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Inclusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Satisfaction ranking on a scale of 1 to 10, where 1 is low and 10 is high.

[e] Sample size less than 10.

[f] Sample size greater than 10 but less than 25.

Table 331. Age of introduction to hunting[a], Oregon hunters grouped by species hunted, 1980.

	Beginning age (years)									
	1-5		6-8		9-11		12-15		16-17	
Hunter segment[b]	No. of hunters	Percent	No. of hunters[c]	Percent[c]	No. of hunters	Percent	No. of hunters	Percent	No. of hunters[c]	Percent[c]
Deer hunters	6,431	2.3	21,260	7.5	46,798	16.6	129,725	46.0	26,145	9.3
Elk hunters	2,903	2.7	13,892	13.0	17,751	16.6	49,161	46.0	7,891	7.4
Antelope hunters[d]	728	11.7	--	--	--	--	4,026	64.6	--	--
Bear hunters[e]	2,256	14.7	1,259	8.2	894	5.8	9,668	63.1	--	--
Goose hunters	921	2.7	6,798	19.6	8,406	22.8	14,730	40.0	2,210	6.0
Duck hunters	2,710	4.5	9,698	16.2	11,182	18.7	26,952	45.0	4,942	8.3

	Beginning age (years)									
	18-24		25-34		35-44		45-54		55+	
Hunter segment[b]	No. of hunters[c]	Percent[c]	No. of hunters[c]	Percent[c]	No. of hunters[c]	Percent[c]	No. of hunters[c]	Percent[c]	No. of hunters[c]	Percent[c]
Deer hunters	29,032	10.3	14,310	5.1	3,892	1.4	2,353	.8	1,770	.6
Elk hunters	9,747	9.1	1,299	1.2	3,265	3.1	877	.8	--	--
Antelope hunters[d]	--	--	--	--	--	--	1,475	23.7	--	--
Bear hunters[e]	--	--	1,247	8.1	--	--	--	--	--	--
Goose hunters	568	1.5	997	2.7	--	--	--	--	--	--
Duck hunters	1,903	32.	2,445	4.1	--	--	--	--	--	--

[a] Introduction to hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Inclusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this term.

[d] Sample size less than 10.

[e] Sample size greater than 10 but less than 25.

Table 332. Years of hunting[1], Oregon hunters grouped by species hunted, 1980.

Hunter segment[b]	Years of participation											
	1-2		3-5		6-8		9-11		12-15		16-24	
	Number of hunters[c]	Percent[c]	Number of hunters[c]	Percent[c]	Number of hunters[c]	Percent[c]	Number of hunters[c]	Percent[c]	Number of hunters	Percent	Number of hunters	Percent
Deer hunters	17,532	6.2	26,661	9.5	25,304	9.0	30,341	10.8	22,519	8.0	64,993	23.0
Elk hunters	1,572	1.5	7,292	6.8	10,182	9.5	8,956	8.4	11,227	10.5	33,954	31.8
Antelope hunters[d]	---	---	---	---	---	---	---	---	734	11.8	2,909	46.4
Bear hunters[e]	---	---	---	---	46	.3	261	1.7	6,964	45.4	4,514	29.4
Goose hunters	1,565	4.5	785	2.3	4,945	14.3	3,584	9.7	6,136	16.6	6,807	19.7
Duck hunters	3,013	4.0	6,426	10.7	4,263	7.1	6,576	11.0	7,761	13.0	16,492	27.5

Hunter segment[b]	Years of participation									
	25-34		35-44		45-54		55-64		65+	
	Number of hunters	Percent	Number of hunters[c]	Percent[c]	Number of hunters[c]	Percent[c]	Number of hunters[c]	Percent[c]	Number of hunters[c]	Percent[c]
Deer hunters	33,546	11.8	27,576	9.7	19,819	7.0	9,026	3.2	4,397	1.6
Elk hunters	13,895	13.0	8,090	7.6	8,419	7.9	2,998	2.8	101	.1
Antelope hunters[d]	1,498	24.1	---	---	1,088	17.5	---	---	---	---
Bear hunters[e]	1,259	8.2	1,309	8.5	---	---	970	6.3	---	---
Goose hunters	4,793	13.8	2,913	8.4	2,135	6.2	---	---	967	2.8
Duck hunters	7,302	12.2	6,099	10.2	1,901	3.2	---	---	---	---

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[a] Years of participation in hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Inclusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Sample size less than 10.

[e] Sample size greater than 10 but less than 25.

Table 333. Most important reason for hunting[a], Oregon hunters grouped by species hunted, 1980.

	Most important reason							
	Obtain meat		Problem animals		Be with family, friends		Sport, recreation	
Hunter segment[b]	Number	Percent	Number[c]	Percent[c]	Number	Percent	Number	Percent
Deer hunters	150,888	53.7	608	.2	23,118	8.2	80,606	28.7
Elk hunters	58,322	55.1	--	--	7,043	6.6	30,248	28.6
Antelope hunters[d]	2,563	41.1	--	--	734	11.8	2,024	35.4
Bear hunters[e]	9,609	62.7	--	--	155	1.0	4,209	27.5
Goose hunters	14,073	40.6	--	--	1,314	3.8	12,953	37.4
Duck hunters	23,621	39.5	--	--	1,944	3.2	25,723	43.0

	Most important reason					
	Be close to nature		Trophy		Other reasons	
Hunter segment[b]	Number[c]	Percent[c]	Number[c]	Percent[c]	Number[c]	Percent[c]
Deer hunters	21.587	7.7	2,716	1.0	1.314	.5
Elk hunters	7,728	7.3	1,982	1.9	586	.5
Antelope hunters[d]	--	--	--	--	728	11.7
Bear hunters[e]	1,350	8.8	--	--	--	--
Goose hunters	4,910	14.2	793	2.3	586	1.7
Duck hunters	7,751	13.0	793	1.3	--	--

[a] Reasons for hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by species hunted. A hunter could appear in more than one group. Inclusion in a segment was based on in-state hunting in at least one of five often hunted places.

[c] dashes indicate that no person in the sample reported information on this item.

[d] Sample size less than 10.

[e] Sample size greater than 10 but less than 25.

Table 334. Second most important reason for hunting[a], Oregon hunters grouped by species hunted, 1980.

Hunter segment[b]	Obtain meat		Problem animals		Be with family, friends		Sport, recreation	
	Number[c]	Percent[c]	Number[c]	Percent[c]	Number[c]	Percent[c]	Number[c]	Percent[c]
Deer hunters	58,883	21.0	4,792	1.7	57,801	20.6	98,757	35.2
Elk hunters	20,006	18.9	4,510	4.3	18,052	16.9	27,618	26.1
Antelope hunters[d]	2,232	35.8	--	--	--	--	2,563	41.1
Bear hunters[e]	1,385	9.0	112	.7	2,403	15.7	6,545	42.7
Goose hunters	5,758	16.6	112	.3	7,851	22.7	10,585	30.6
Duck hunters	10,080	16.8	112	.3	16,944	28.3	18,065	30.2

Hunter segment[b]	Be close to nature		Trophy		Other reasons		No reasons	
	Number	Percent	Number[c]	Percent[c]	Number[c]	Percent[c]	Number[c]	Percent[c]
Deer hunters	38,764	13.8	10,521	3.7	2,861	1.0	8,545	3.0
Elk hunters	19,329	18.2	9,745	9.2	759	.7	5,975	5.6
Antelope hunters[d]	--	--	1,434	23.0	--	--	--	--
Bear hunters[e]	1,504	9.8	3,374	22.0	--	--	--	--
Goose hunters	9,355	27.0	--	--	--	--	967	2.8
Duck hunters	10,552	17.6	3,391	5.7	--	--	687	1.1

[a] Reasons for hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by species hunted. Groups are not mutually exclusive in that a hunter could appear in more than one group. Inclusion in a segment is based on resident in-state hunting in at least one of hunters' five most often hunted locations.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Sample size less than 10.

[e] Sample size greater than 10 but less than 25.

Table 335. Days of hunting and expenditures for equipment, Oregon special weapon hunters, 1980

Type of game pursued	Hunters[a]			
	Bow and arrow		Muzzle loader[b]	
	Total days[c]	Average[c]	Total days[c]	Average[c]
Big game	216,200	13.3	12,000	3.8
Small game	25,500	23.6	700	6.0
Migratory birds	--	--	4,800	10.0
Other animals	9,300	8.6	--	--
Days hunted in-state	250,900	15.4	17,500	4.5
Days hunted out-of-state	--	--	2,100	3.0
Total days	250,900		19,600	
Proportion of total hunting days[d]	5.2%		.4%	
Expenditures for special equipment	$2,286,800		e	

[a] Hunter segments defined by special weapon used. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who hunted in-state.

[b] Sample size less than 10.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Source: 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, U.S. Dept. of the Interior, Fish and Wildlife Service, and U.S. Dept. of Commerce, Bureau of the Census. U.S. Gov't. Printing Office, 1980.

[e] Information not available.

Table 336. Age of introduction to hunting[a] and years of participation[b], Oregon special weapon hunters, 1980.

Age and years of participation	Hunters[c]			
	Bow and arrow		Muzzle loader[d]	
	Number[e]	Percent[e]	Number[e]	Percent[e]
Beginning age:				
1-5 years	2,054	10.7	921	23.6
6-8 years	2,141	11.1	838	21.5
9-11 years	5,576	28.9	689	17.7
12-15 years	7,229	37.5	--	--
16-17 years	--	--	--	--
18-24 years	2,301	11.9	1,449	37.2
25-34 years	--	--	--	--
35+ years	--	--	--	--
Years of participation				
1-2 years	--	--	--	--
3-5 years	1,614	8.4	--	--
6-8 years	2,276	11.8	--	--
9-11 years	5,787	30.0	1,449	37.2
12-15 years	3,273	17.0	--	--
16-17 years	152	.8	--	--
18-24 years	2,799	14.5	689	17.7
25-34 years	2,595	13.4	155	4.0
35-44 years	--	--	1,604	41.2
45-54 years	230	1.2	--	--
55-64 years	576	3.0	--	--
65+ years	--	--	--	--

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[a] Introduction to hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Years of participation in hunting in general, not hunting a particular species, game type, or using special weapons.

[c] Hunter segments defined by special weapon used. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who used these weapons.

[d] Sample size less than 10.

Table 337. Reasons for hunting[a], Oregon special weapon hunters, 1980.

Most important and second most important reasons	Hunters[b]			
	Bow and arrow		Muzzle loader[c]	
	Number[d]	Percent[d]	Number[d]	Percent[d]
Most important:				
Obtain meat	10,717	55.5	2,244	57.6
Problem animals	--	--	--	--
Be with family, friends	3,976	20.6	155	4.0
Sport, recreation	2,827	14.6	1,498	38.4
Be close to nature	837	4.3	--	--
Trophy	217	1.1	--	--
Other reasons	728	3.8	--	--
Second most important:				
Obtain meat	2,769	14.3	963	24.7
Problem animals	--	--	112	2.9
Be with family, friends	5,289	27.4	2,138	54.9
Sport, recreation	5,755	29.8	--	--
Be close to nature	5,099	26.4	683	17.5
Trophy	391	2.0	--	--
Other reasons	--	--	--	--

[a] Reasons for hunting in general, not hunting a particular species, game type, or using special weapons.

[b] Hunter segments defined by special weapon used. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who used these weapons.

[c] Sample size less than 10.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 33B. Membership in organizations, Oregon special weapon hunters, 1980.

Organization groups[b]	Hunters[a]			
	Bow and arrow		Muzzle loader[c]	
	Number[d]	Percent[d]	Number[d]	Percent[d]
A	--	--	--	--
B	--	--	--	--
C	3,015	15.6	1,765	45.3
D	--	--	112	2.9
E	3,015		1,652	42.4
F	--	--	808	20.7
No organization	16,287	84.4	2,131	54.7

[a] Hunter segments defined by special weapon used. Groups are not mutually exclusive in that a hunter could appear in more than one group. Includes Oregon residents who used these weapons.

[b] Groups include: A-Defenders of Wildlife, Fund for Animals, Friends of Animals; B-Trout Unlimited, B.A.S.S.; C-Ducks Unlimited, National Rifle Association, Safari Club International; D-American Museum of Natural History, National Geographic Society, Nature Conservancy, Sierra Club, Wilderness Society; E-American Birding Association, Izaak Walton League, National Audubon Society, National Wildlife Federation, The Wildlife Society, World Wildlife Fund; and F-Other organizations.

[c] Sample size less than 10.

[d] Dashes indicate that no person in the sample reported information on this item.

Table 339. Participants, Oregon angler groups, 1980.

Groups	Number of anglers	Percent of state population[a]	Percent of state sportsmen[a]
Fishermen by -			
Type of fishing:			
Freshwater[b]	620,800	30.7	81.4
Saltwater[c]	256,900	12.7	33.7
Fishing location[d]:			
Large reservoirs	242,600		
Small reservoirs	85,100		
Natural lakes	264,400		
Rivers and streams	433,500		
Deep sea	129,200		
Surf and shore	101,700		
Sounds, tidal pools	95,700		
Specialty fishing:			
Ice fishermen[e]	3,700	.2	.5
Species fished[f]:			
Freshwater -			
Bass	109,300	5.4	14.3
Panfish	109,700	5.4	14.3
Catfish	103,400	5.1	13.5
Trout	528,500	26.1	69.2
Salmon/steelhead	218,700	10.8	28.7
Saltwater -			
Salmon	136,500	6.7	17.8
Steelhead	--[g]		
Rockfish	57,200	2.8	7.5

[a] Population 16 years old and older. Source: 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, U.S. Dept. of the Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of the Census. U.S. Gov't. Printing Office, 1982.

[b] Includes Oregon residents who fished freshwater in state of residence.

[c] Includes Oregon residents who fished saltwater, in or out of Oregon.

[d] Includes Oregon residents who fished these locations.

[e] Sample size 10 or less.

[f] Includes Oregon residents who fished for species in state of residence in at least one of anglers' five most often fished places.

[g] No person in the sample reported information on this item.

Table 340. Age of introduction to fishing[a] and years of participation[b], Oregon fishermen grouped by type of fishing, 1980.

Age and years of participation	Fishermen[c]			
	Freshwater[d]		Saltwater[e]	
	Number	Percent	Number	Percent
Beginning age:				
3-5 years	190,424	30.7	78,680	31.9
6-8 years	206,175	33.3	72,880	29.6
9-11 years	84,180	13.6	36,460	14.8
12-15 years	70,482	11.4	29,969	12.2
16-17 years	13,143	2.1	--[e]	--[e]
18-24 years	28,740	4.6	14,081	5.7
25-34 years	5,541	.9	5,773	2.3
35-44 years	8,013	1.3	6,648	2.7
45-54 years	7,290	1.2	2,112	.9
55+ years	5,716	.9	--[e]	--[e]
Years of participation:				
1-2 years	14,885	2.4	8,122	3.3
3-5 years	30,184	4.9	19,209	7.8
6-8 years	45,238	7.3	11,947	4.8
9-11 years	42,649	6.9	7,411	3.0
12-15 years	63,476	10.2	16,436	6.7
16-17 years	24,681	4.0	11,059	4.5
18-24 years	146,173	23.6	58,047	23.5
25-34 years	115,158	18.6	54,347	22.0
35-44 years	67,652	10.9	37,249	15.1
45-54 years	47,027	7.6	16,459	6.7
55+ years	22,876	3.7	6,318	2.5

[a] Introduction to fishing in general, not fishing a particular species, fishing type, or method.

[b] Years of participation in fishing in general, not fishing a particular species, fishing type, or method.

[c] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in more than one group.

[d] Includes Oregon residents who fished freshwater in state of residence.

[e] Includes Oregon residents who fished saltwater.

[f] Dashes indicate that no person in the sample reported information on this item.

Table 341. Membership in organizations, Oregon fishermen grouped by type of fishing, 1980.

	Fishermen[a]			
	Freshwater[b]		Saltwater[c]	
Organization groups[d]	Number	Percent[e]	Number	Percent[e]
A	297	<1.	297	.1
B	4,574	.7	1,598	.6
C	38,319	6.2	15,040	6.1
D	28,971	4.7	14,388	5.8
E	64,165	10.3	29,939	12.1
F	12,848	2.1	10,362	4.2
No organization	530,948	85.5	202,582	82.1

[a] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in more than one group.

[b] Includes Oregon residents who fished freshwater in state of residence.

[c] Includes Oregon residents who fished saltwater.

[d] Groups include: A-Defenders of Wildlife, Fund for Animals, Friends of Animals; B-Trout Unlimited, B.A.S.S.; C-Ducks Unlimited, Nat'l Rifle Association, Safari Club International; D-American Museum of Natural History, Nat'l. Geographic Society, Nature Conservancy, Sierra Club, Wilderness Society; E-American Birding Association, Isaak Walton League, Nat'l. Audubon Society, Nat'l. Wildlife Federation, the Wildlife Society, World Wildlife Fund; and F-Other organizations.

[e] Percents may total more than 100 due to membership in more than one organization.

Table 342. Other locations fished by Oregon fishermen grouped by fishing location, 1980.

Anglers[a]	Fishing locations[b]			
	Large reservoirs	Small reservoirs	Natural lakes/ponds	Rivers and streams
	number of fishermen			
Large reservoir (10 acres)		53,393 (22.0%)	113,853 (46.9%)	148,879 (61.4%)
Small reservoir (<10 acres)	53,393 (62.7%)		51,752 (60.8%)	67,381 (79.2%)
Natural lake (pond)	113,853 (43.1%)	51,752 (19.6%)		183,396 (69.4%)
River and stream	148,879 (34.4%)	67,381 (15.5%)	183,396 (42.3%)	

[a] Angler segments defined by fishing location. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Only residents are included in these segments.

[b] These fishing locations may or may not have been located in an angler's state of residence.

Table 343. Fishing participation, by state wildlife management regions, Oregon fishermen grouped by type of fishing, 1980.

Region[a]/ Anglers[b]	Days fishing[e] Total[c] (in thousands)	Days fishing[e] Mean[c]	Fishing trips[e] Total[c] (in thousands)	Fishing trips[e] Mean[c]	Number of day trips[c] (in thousands)	Average miles driven[c,d]	Average hours per day fishing[c]
Region 411							
Freshwater	6,671	16.3	6,301	15.3	5,616	33	5.1
Saltwater	825	4.8	698	4.1	417	94	6.0
Region 412							
Freshwater	1,297	12.3	1,060	9.8	776	95	5.3
Saltwater	--	--	--	--	--	--	--
Region 413							
Freshwater	703	8.9	530	6.7	444	132	4.8
Saltwater	--	--	--	--	--	--	--
Region 414							
Freshwater	68	6.3	16	1.5	--	330	5.5
Saltwater	--	--	--	--	--	--	--
Region 415							
Freshwater	638	5.0	365	2.9	185	142	5.2
Saltwater	--	--	--	--	--	--	--
Region 416							
Freshwater	2,442	18.6	2,129	16.2	1,983	84	5.3
Saltwater	434	9.3	406	8.7	287	68	5.5

[a] Regional data may be based on a small number of observations. See Figure 8 for a map of state regions.

[b] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Inclusion in a segment is based on resident in-state fishing in at least one of anglers' five most often fished locations.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Miles one-way from home to usual fishing place.

[e] Numbers differ slightly from those in the 1980 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation--Oregon because of rounding.

Table 344. Expenditures, Oregon fishermen grouped by type of fishing, 1980.

(Totals in thousands of dollars)

Expenditure types	Freshwater[a] Total amount	Freshwater[a] Ave. per fisherman	Saltwater[a] Total amount	Saltwater[a] Ave. per fisherman
Guide fees	200	.31	311	1.26
Pack trip or package fees	43	.07	2,777	11.26
Public land access or use fees	108	.17	3	.01
Private land access or use fees	129	.20	4	.02
Boat launching fees	378	.59	398	1.62
Equipment rental fee	1,187	1.86	439	1.78
Total access-related expense	2,045		3,929	
In-state access-related expenses	1,795	2.81	2,524	10.23
Total travel-related expense[b]	93,700		25,000	
In-state travel-related expenses[b]	77,658	121.66	18,778	76.15

[a] Angler segments defined by type of fishing. Groups are not mutually exclusive in that a fisherman could appear in more than one group.

[b] Includes food, transportation, and lodging expenses.

Table 345. Days of participation, by state wildlife management regions, Oregon fishermen grouped by species fished, 1980.

	Days fishing	
Region[a]/ Angler segment[b]	Total[c] (thousands of days)	Mean[c]
Region 411		
Freshwater:		
Bass	765	13.4
Panfish	1,061	14.8
Catfish	882	13.6
Trout	4,081	12.4
Salmon/steelhead	1,882	13.9
Saltwater:		
Salmon	403	3.6
Steelhead	---	---
Rockfish	281	6.7
Region 412		
Freshwater:		
Bass	229	18.2
Panfish	129	33.1
Catfish	137	20.0
Trout	847	9.4
Salmon/steelhead	350	11.3
Saltwater:		
Salmon	---	---
Steelhead	---	---
Rockfish	---	---
Region 413		
Freshwater:		
Bass	132	5.2
Panfish	53	8.0
Catfish	95	4.6
Trout	407	7.0
Salmon/steelhead	27	2.4
Saltwater:		
Salmon	---	---
Steelhead	---	---
Rockfish	---	---

Table 345. Continued.

Region[a]/ Angler segment[b]	Days fishing	
	Total[c] (thousands of days)	Mean[c]
Region 414		
Freshwater:		
Bass	4	2.0
Panfish	21	2.0
Catfish	15	5.0
Trout	52	6.8
Salmon/steelhead	---	---
Saltwater:		
Salmon	---	---
Steelhead	---	---
Rockfish	---	---
Region 415		
Freshwater:		
Bass	23	8.0
Panfish	18	6.5
Catfish	6	2.1
Trout	552	4.8
Salmon/steelhead	41	4.4
Saltwater:		
Salmon	---	---
Steelhead	---	---
Rockfish	---	---
Region 416		
Freshwater:		
Bass	148	5.1
Panfish	215	6.9
Catfish	123	6.1
Trout	1,278	12.3
Salmon/steelhead	859	18.2
Saltwater:		
Salmon	189	7.0
Steelhead	---	---
Rockfish	66	4.5

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[a] Regional data may be based on a small number of observations. See Figure 8 for a map of state regions.

[b] Angler segments defined by species fished. Groups not mutually exclusive in that a fisherman could appear in more than one group. Inclusion in a segment is based on resident in-state fishing in at least one of anglers' five most often fished places.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 346. Age of introduction to fishing[a], Oregon fishermen grouped by species fished, 1980.

Angler segment[b]	Beginning age (years)									
	1-5		6-8		9-11		12-15		16-17	
	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]
Freshwater:										
Bass	54,351	47.6	29,444	25.8	9,334	8.2	11,997	10.5	3,929	3.4
Panfish	53,227	45.3	22,517	19.2	22,268	19.0	14,885	12.7	---	---
Catfish	54,562	48.7	27,296	24.4	11,336	10.1	8,536	7.6	---	---
Trout	179,119	33.8	171,475	32.4	69,837	13.2	56,302	10.6	11,914	2.2
Salmon/steelhead	86,057	38.8	72,007	32.5	21,678	9.8	19,411	8.8	4,380	2.0
Saltwater:										
Salmon	39,151	28.7	38,067	27.9	24,547	18.0	23,271	17.1	---	---
Steelhead	---	---	---	---	---	---	---	---	---	---
Rockfish	23,328	40.8	13,806	24.1	6,551	11.4	6,434	11.2	---	---

Table 346. Continued.

Angler segment[b]	Beginning age (years) 18-24 Number of anglers[c]	18-24 Percent[c]	25-34 Number of anglers[c]	25-34 Percent[c]	35-44 Number of anglers[c]	35-44 Percent[c]	45-54 Number of anglers[c]	45-54 Percent[c]	55-64+ Number of anglers[c]	55-64+ Percent[c]
Freshwater:										
Bass	5,101	4.5	---	---	---	---	---	---	---	---
Panfish	3,028	2.6	1,540	1.3	---	---	---	---	---	---
Catfish	7,154	6.4	---	---	---	---	133	.1	3,040	2.7
Trout	17,515	3.3	4,001	.8	8,013	1.5	7,290	1.4	3,945	.8
Salmon/steelhead	10,554	4.8	2,253	1.0	890	.4	1,475	.7	3,040	1.4
Saltwater:										
Salmon	3,127	2.3	2,274	2.3	3,927	2.9	2,112	1.5	---	---
Steelhead	---	---	---	---	---	---	---	---	---	---
Rockfish	4,383	7.7	---	---	2,721	4.8	---	---	---	---

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[a] Introduction to fishing in general, not fishing a particular species, fishing type, or method.

[b] Angler segments defined by species fished. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Inclusion in a segment is based on resident in-state fishing in at least one of anglers' five most often fished locations.

[c] Dashes indicate that no person in the sample reported information on this item.

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Table 347. Years of fishing[a], Oregon fishermen grouped by species fished, 1980.

Angler segment[b]	Years of participation											
	1-2		3-5		6-8		9-11		12-15		16-17	
	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]
Freshwater:												
Bass	1,586	1.4	---	---	7,283	6.4	2,658	2.3	14,197	12.4	8,264	7.2
Panfish	1,586	1.3	6,058	5.1	1,911	1.6	3,433	2.9	11,375	9.7	6,097	5.2
Catfish	1,586	1.4	337	.3	6,354	5.7	2,641	2.4	16,467	14.7	2,455	2.2
Trout	8,586	1.6	17,722	3.3	43,496	7.2	38,178	7.2	54,564	10.3	21,134	4.0
Salmon/steelhead	6,232	2.8	5,828	2.6	12,260	5.5	11,307	5.1	20,647	9.3	12,586	5.7
Saltwater:												
Salmon	3,037	2.2	13,496	9.9	5,238	3.8	3,457	2.5	6,726	4.9	3,852	2.8
Steelhead	---	---	---	---	---	---	---	---	---	---	---	---
Rockfish	1,586	2.8	2,721	4.8	---	---	3,659	6.4	4,136	7.2	2,207	3.9

Table 347. Continued.

Angler segment[b]	Years of participation											
	18-24		25-34		35-44		45-54		55-64		65+	
	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]	Number of anglers[c]	Percent[c]
Freshwater:												
Bass	36,600	32.0	26,041	22.8	7,256	6.3	8,779	7.7	970	.8	819	.7
Panfish	38,258	32.5	25,304	21.5	15,071	12.8	6,880	5.8	970	.8	819	.7
Catfish	32,715	29.1	26,355	23.5	12,400	11.0	8,338	7.4	1,889	1.7	819	.7
Trout	133,193	25.2	97,615	18.4	52,516	9.9	41,867	7.9	16,437	3.1	4,162	.8
Salmon/steelhead	55,450	25.0	36,925	16.7	37,445	16.9	17,470	7.9	5,495	2.5	101	.0
Saltwater:												
Salmon	29,481	21.6	27,984	20.5	31,861	23.3	6,032	4.4	5,313	3.9	---	---
Steelhead	---	---	---	---	---	---	---	---	---	---	---	---
Rockfish	20,346	35.6	10,562	18.5	5,285	9.2	4,396	7.7	2,321	4.1	---	---

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[a] Years of participation in fishing in general, not fishing a particular species, fishing type, or method.

[b] Angler segments defined by species fished. Groups are not mutually exclusive in that a fisherman could appear in more than one group. Inclusion in a segment is based on resident in-state fishing in at least one of anglers' five most often fished locations.

[c] Dashes indicate that no person in the sample reported information on this item.

Table 34B. Number of participants, days of fishing, and expenditures for special equipment, Oregon ice fishermen, 1980.

	Number of participants	Days fishing			Expenditures for special equipment
		In-state	Out-of-state	Total	
Ice fishermen[a]	3,700	4,100	b	4,100[c]	$29,400

[a] Sample size less than 10.

[b] No person in the sample reported information on this item.

[c] Approximately .03 percent of total Oregon resident fishing days (Source: 1980 National Survey of Fishing, Hunting, and Wildlife Associated Recreation. U.S. Department of the Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of Census. U.S. Gov't. Printing Office, 1982).

Table 349. Age of introduction to fishing and years of participation, Oregon ice fishermen, 1980.

Age and years of participation	Percent of Ice Fishermen[a,b]
Beginning age:	
1-5 years	34.0
6-8 years	20.3
9-11 years	--
12-15 years	45.7
16-17 years	--
18-24 years	--
25+ years	--
Years of participation:	
1-2 years	--
3-5 years	--
6-8 years	12.2
9-11 years	--
12-15 years	--
16-17 years	11.2
18-24 years	54.3
25-34 years	--
35-44 years	16.0
45-54 years	6.3
55+ years	--

[a] Sample size less than 10.

[b] Dashed indicate that no person in the sample reported information on this item.

Table 350.Membership in organizations, Oregon ice fishermen, 1980.

Organization groups[a]	Percent of Ice Fishermen[b,c,d]
A	--
B	--
C	6.3
D	6.3
E	16.0
F	16.0
No organization	77.8

[a] Groups include: A-Defenders of Wildlife, Fund for Animals; B-Trout Unlimited, B.A.S.S.; C-Ducks Unlimited, National Rifle Association, Safari Club International; D-American Museum of Natural History, Natl. Geographic Society, Nature Conservancy, Sierra Club, Wilderness Society; Wilderness Society; E-American Birding Association, Izaak Walton League, Nat'l. Audubon Society, Nat'l. Wildlife Federation, The Wildlife Society, World Wildlife Fund; and F-Other organizations.

[b] Sample size less than 10.

[c] Dashes indicate that no person in the sample reported information on this item.

[d] Percents may total more than 100 due to membership in more than one organization.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

March 3, 1849

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